

The Mining Journal

RAILWAY AND COMMERCIAL GAZETTE:

FORMING A COMPLETE RECORD OF THE PROCEEDINGS OF ALL PUBLIC COMPANIES.

[The MINING JOURNAL is Registered at the General Post Office as a Newspaper, and for Transmission Abroad.]

No. 2568.—VOL. LIV.

LONDON, SATURDAY, NOVEMBER 8, 1884.

[WITH SUPPLEMENT.] {PRICE SIXPENCE.
BY POST, £1 4s. PER ANNUM

MR. JAMES H. CROFTS, STOCK AND SHARE DEALER,
No. 1, FINCH LANE, CORNHILL, LONDON, E.C.
ESTABLISHED 1842.

BUSINESS transacted in all descriptions of MINING STOCKS and SHARES (British and Foreign), Consols, Bonds (Foreign and Colonial), Railways, Insurance, Assurance, Telegraph, Tramway, Shipping, Canal, Gas, Water, and Dock Shares, and all Miscellaneous Shares.
BUSINESS negotiated in STOCKS and SHARES not having a general market value.

Every Friday a GENERAL and RELIABLE LIST issued (a copy of which will be forwarded on application), containing closing prices of the week.

MINES INSPECTED.

BANKERS: CITY BANK, LONDON—SOUTH CORNWALL BANK, St. Austell.
TELEPHONE NUMBER 1003.

SPECIAL DEALINGS in the following (or part):—

75 Asia Minor, 3s. 6d.	100 Guinea Coast Gold, offer wanted.	100 Parys Copper, 1s. 9d.
100 Alaska, 1s. 4d.	100 Gunnsike (Chiters), 7s. 6d.	100 Phoenix United, 28s. 9d.
100 Almaden, 3s.	100 Hoover Hill, 4s. 6d.	100 Panatello, 23s. 9d.
100 Bedford United, 27s.	100 Home Mines Trust, 22s.	100 Prince of Wales, 7s. 6d.
100 Balkis, 3s.	100 Indian Consol., 2s. 9d.	100 Peatara, 1s. 3d.
100 Bratsberg, 23s. 9d.	100 Javali, 4s.	100 Rio Tinto, 213s. 9d.
100 Cankin Bamoo, 2s.	100 Kapanga, 2s. 9d.	100 Ruby (old), 9s.
100 Carn Camborne, 10s. 6d.	100 Killifreth, 14s.	100 Do. (new), 7s. 6d.
100 Callao Bis, 13s. 6d.	100 Kimberley No. Block, 10s. 6d.	100 Roman Grav., 43s. 10s.
100 Chile Gold, 2s. 9d.	100 Kongsberg, 10s. 6d.	100 Schwab's Gully, 25s. 6d.
100 Colombian Hyd., 10s.	100 La Plata (New), 5s. 3d.	100 Spitzkop, 13s. 6d.
100 Consolidated, 2s.	100 Leadhills, 27s.	100 South Caradon, 12s.
100 California, 11s.	100 Lisbon-Berlyn, 5s. 9d.	100 So. Conduro, 28s. 4d.
100 Colorado, 2s.	100 Marke Valley, 12s.	100 South Darren, 5s. 6d.
100 Canada Copper, 3s.	100 Michipicoten, 10s. 6d.	100 So. Devon Uni., 3s.
100 Chontales, 3s.	100 Mons, offer wanted.	100 South Penstruthal, offer wanted.
100 Cor. South Australian Copper, 2s. 3d.	100 Mounts Bay, 3s.	100 Tanbrachery, 6s. 3d.
100 Cootacovil, 1s. 6d.	100 Mysoore Gold, 27s.	100 Tolima A, 25s. 6d.
100 Denver, 2s.	100 New Caradon, 1s. 9d.	100 Transvaal Gold, 17s.
100 Devala Moyer, 5s. 3d.	100 New Callao, 4s.	100 Trevaunance, 21s. 18s.
100 Devon Con., 22s. 6d.	100 New Emma, 11s.	100 Untd. Mexican, 23s. 9d.
100 Devon Friend., 3s.	100 New Kitty, 24s.	100 Victoria Gold, 6s. 6d.
100 Devon United, 2s. 6d.	100 Nouveau Monde, 29s. 6d.	100 Wheel Agat, 15s. 12s. 10s.
100 Dolcoath, 28s.	100 Nundydoo, 7s. 9d.	100 Wheel Basset, 22s. 4d.
100 Don Pedro, 6s.	100 Old Shepherds, 14s.	100 West Callao, 3s. 6d.
100 Drakeville, 2s. 6d.	100 Oregum, 4s.	100 West Phoenix, 6s. 6d.
100 Duchy Peru, 18s. 3d.	100 Organos, 11s.	100 West Caradon, 2s. 6d.
100 East Blue Hills, 5s.	100 Orita, 17s. 6d.	100 West Oreb, 1s. 6d.
100 Eberhardt, 5s. 9d.	100 Oscar, 12s. 6d. paid, 17s. 6d.	100 West Polbrene, 15s.
100 East Lovell, 12s.	100 Oscar Vendors' shares, 17s. 6d.	100 West Kitty, 2s.
100 East Wh. Rose, 9s. 9d.	100 Polberro, 22s. 1s. 3d.	100 Wheel Coates, 2s. 3d.
100 Ecton, 22s. 6d.	100 Potosi (New), 13s. 9d.	100 Wheel Oreb, 22s. 3d.
100 El Callao, 22s.	100 Port Phillip, 2s. 3d.	100 Wheel Silver & Lanteglos, 2s.
100 Frontino, 12s.	100 Fort Phillip, 2s. 3d.	100 Wynaad Perseu., 2s.
100 Goginan, 2s.	100 Great Laxey, 23s. 7s. 6d.	
100 Gold Coast, 3s. 3d.	100 Great Laxey, 23s. 7s. 6d.	
100 Glenrock, 3s.	100 Great Laxey, 23s. 7s. 6d.	
100 Great Laxey, 23s. 7s. 6d.	100 Great Laxey, 23s. 7s. 6d.	
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* * * SHARES SOLD FOR FORWARD DELIVERY (ONE, TWO, OR THREE MONTHS) ON DEPOSIT OF TWENTY PER CENT.

* * * BUSINESS at CLOSE PRICES in all Market TIN, COPPER, LEAD, GOLD, SILVER, and DIAMOND SHARES.

JAMES H. CROFTS, 1, FINCH LANE, LONDON.

RAILWAYS—SPECIAL BUSINESS.—Fortnightly Accounts opened on receipt of the usual cover.
JAMES H. CROFTS, 1, FINCH LANE, LONDON.

FOREIGN BONDS—SPECIAL BUSINESS.—Fortnightly Accounts opened on receipt of the usual cover.
JAMES H. CROFTS, 1, FINCH LANE, LONDON.

AMERICAN AND CANADIAN STOCKS AND SHARES—SPECIAL BUSINESS.—Fortnightly Accounts opened on receipt of the usual cover.
JAMES H. CROFTS, 1, FINCH LANE, LONDON.

OPTIONS in all STOCKS and SHARES dealt in.—JAMES H. CROFTS, 1, FINCH LANE, LONDON.

GOLD and SILVER MINES.—SPECIAL BUSINESS in ALL marketable INDIAN GOLD SHARES, and in Colombian Hydraulic, California, Callao "Bis," El Callao, Gold Coast, Guinea Gold Coast, Kongsberg, New Callao, Oscar, West Callao, Tolima A, Tolima B, La Plata, Rio Tinto, Frontino, and Bolivia, Potosi, Orita, Nouveau Monde, Ruby, Richmond, Victoria.
* * * SHARES in the ABOVE SOLD FOR FORWARD DELIVERY ONE, TWO, OR THREE MONTHS ON DEPOSIT OF TWENTY PER CENT.
JAMES H. CROFTS, 1, FINCH LANE, LONDON.

MISCELLANEOUS SHARES of ALL DESCRIPTIONS BOUGHT or SOLD—SPECIAL BUSINESS:—Aired Broad, Aylesbury Dairy, Brighton Aquarium, General Credit, Hudson's Bay, Native Gunno, Suez Canal, Westminster Aquarium, and Hotel Shares.
* * * SHARES SOLD FOR FORWARD DELIVERY, ONE, TWO, OR THREE MONTHS, ON DEPOSIT OF TWENTY PER CENT.
JAMES H. CROFTS, 1, FINCH LANE, LONDON.

BALKIS SHARES.—SPECIAL BUSINESS at CLOSE MARKET PRICES either for CASH or FORWARD DELIVERY one, two, or three months.
JAMES H. CROFTS, 1, FINCH LANE, LONDON.

TRANSVAAL GOLD and SOUTH AFRICAN DIAMOND MINES. SPECIAL BUSINESS in all Transvaal Shares, including BALKIS, LISBON-BERLYN, TRANSVAAL, SPITZKOP, SCHWAB'S GULLY, KIMBERLEY NORTH BLOCK, and KIMBERLEY CENTRAL.
* * * SHARES in the ABOVE SOLD FOR FORWARD DELIVERY ON DEPOSIT OF TWENTY PER CENT.
JAMES H. CROFTS, 1, FINCH LANE, LONDON.
ESTABLISHED 1842.

MESSRS. ENDREAN and CO., STOCK and SHARE DEALERS, 85, GRACECHURCH STREET, LONDON, E.C.
ESTABLISHED 1862.
BANKERS: LONDON and WESTMINSTER, Lothbury, E.C.

CHARLES J. SIMS, STOCK and SHARE DEALER, 2, UNION COURT, OLD BROAD STREET, LONDON, E.C.

SPECIAL RECOMMENDED—COLOMBIAN HYDRAULIC Shares at present prices.

THOS. ELS and CO., STOCK and SHARE DEALERS, 6, BOND COURT, WALBROOK, LONDON, E.C.

Business transacted in all Stock Exchange Securities, Foreign Stocks, Railways, Mines, and Miscellaneous Shares.

THOS. ELS and Co. have Special Business in the following Mine Shares:—
100 Balkis, 3s.
100 California, 11s. 2s.
100 Colombian Hyd., 10s. 6d.
100 Glenrock, 3s.
100 Home Mines, 22s.
100 La Plata, 5s. 3d.
100 Lisbon-Berlyn, 5s. 9d.
100 Orita, 17s. 6d.
100 Potosi, 14s.
100 Ruby, 3s.
100 Schwab's Gully, 25s. 6d.
100 Victoria, 6s. 6d.
100 Wynaad Perseu., 2s.
Monthly Circular touching upon Mines in the United States of America, including Colombian Hydraulic, Oregum, Orita, Tolima, and North Tolima, Mines in the Transvaal, including Lisbon and Berlyn and Balkis, and upon Indian Gold Mines, including Glenrock, Mysoore, Nundydoo, Oregum, and Wynaad Perseu., now ready, post free on application.

BRITISH and FOREIGN MINING OFFICES.

Messrs. PETER WATSON and CO., 18, AUSTIN PRIARS, OLD BROAD STREET, LONDON, E.C.
BANKERS: THE ALLIANCE BANK (Limited).

Messrs. PETER WATSON and CO.'S BRITISH and FOREIGN MONTHLY MINING NEWS—STOCK and SHARE INVESTMENT NOTES—MINES, MINERALS, and METAL MARKETS—SHARE LIST, No. 886, Vol. XVII., for NOVEMBER month, will shortly be ready, and will be sent to customers on application.

Annual Subscription..... 5s. | Single Copy..... 6d.

MR. ALFRED E. COOKE, BRITISH and FOREIGN STOCK and SHARE DEALER, 9, OLD BROAD STREET, LONDON.
ESTABLISHED 1853.
(Opposite the Stock Exchange, with which his offices are in DIRECT TELEGRAPHIC COMMUNICATION.)
TELEPHONE No. 1268.

Mr. ALFRED E. COOKE can SELL the following shares, or any smaller marketable number at prices affixed FREE OF COMMISSION:

100 Almaden, 3s. 6d.	100 Goginan, 2s.	100 Oregum, 2s. 6d.
100 Balkis, 3s.	100 Hoover Hill, 4s. 6d.	100 Potosi, 14s. 6d.
100 Bratsberg, 23s. 9d.	100 Home Mines Trust, 22s.	100 Prince of Wales, 7s. 6d.
100 Callao Bis, 13s. 6d.	100 Killifreth, 14s.	100 Schwab's Gully, 25s. 6d.
100 Chile Gold, 2s. 9d.	100 La Plata (New), 5s.	100 South Caradon, 12s.
100 Colombian Hydraulic, 10s. 6d.	100 Leadhills, 27s.	100 So. Conduro, 28s. 4d.
100 Chontales, 3s. 3d.	100 Lisbon-Berlyn, 5s. 9d.	100 South Darren, 5s. 6d.
100 Cor. South Australian Copper, 2s.	100 Mounts Bay, 3s. 6d.	100 So. Devon Uni., 3s.
100 Denver, 2s.	100 Mysoore Gold, 27s.	100 South Penstruthal, offer wanted.
100 Devala Moyer, 5s.	100 New Caradon, 1s. 9d.	100 Tanbrachery, 6s. 3d.
100 Devon Friend., 3s.	100 New Callao, 4s.	100 Tolima A, 25s. 6d.
100 Devon United, 2s. 6d.	100 New Emma, 11s.	100 Transvaal Gold, 17s.
100 Dolcoath, 28s.	100 New Kitty, 24s.	100 Trevaunance, 21s. 18s.
100 Don Pedro, 6s.	100 Nouveau Monde, 29s. 6d.	100 Untd. Mexican, 23s. 9d.
100 Drakeville, 2s. 6d.	100 Nundydoo, 7s. 9d.	100 Victoria Gold, 6s. 6d.
100 Duchy Peru, 18s. 3d.	100 Old Shepherds, 14s.	100 Wheel Agat, 15s. 12s. 10s.
100 East Blue Hills, 5s.	100 Oregum, 4s.	100 Wheel Basset, 22s. 4d.
100 Eberhardt, 5s. 9d.	100 Organos, 11s.	100 West Callao, 3s. 6d.
100 East Lovell, 12s.	100 Orita, 17s. 6d.	100 West Phoenix, 6s. 6d.
100 East Wh. Rose, 9s. 9d.	100 Oscar, 12s. 6d. paid, 17s. 6d.	100 West Caradon, 2s. 6d.
100 Ecton, 22s. 6d.	100 Oscar Vendors' shares, 17s. 6d.	100 West Oreb, 1s. 6d.
100 El Callao, 22s.	100 Polberro, 22s. 1s. 3d.	100 West Polbrene, 15s.
100 Frontino, 12s.	100 Potosi (New), 13s. 9d.	100 West Kitty, 2s.
100 Goginan, 2s.	100 Port Phillip, 2s. 3d.	100 Wheel Coates, 2s. 3d.
100 Gold Coast, 3s. 3d.	100 Fort Phillip, 2s. 3d.	100 Wheel Oreb, 22s. 3d.
100 Glenrock, 3s.	100 Great Laxey, 23s. 7s. 6d.	100 Wheel Silver & Lanteglos, 2s.
100 Great Laxey, 23s. 7s. 6d.	100 Great Laxey, 23s. 7s. 6d.	100 Wynaad Perseu., 2s.
100 Great Laxey, 23s. 7s. 6d.	100 Great Laxey, 23s. 7s. 6d.	

MANY OF THE ABOVE SHARES WILL BE SOLD FOR FORWARD DELIVERY (ONE, TWO, OR THREE MONTHS) ON DEPOSIT OF TEN OR TWENTY PER CENT.

WHAT TO BUY FOR A RISE.

Apply for List issued by ALFRED E. COOKE.

Mr. COOKE has correspondents in every important city and town in England, whereby he can deal in Local Shares of every description.

Daily and Weekly Lists of Prices issued to clients on application.

ADVANCES MADE ON STOCKS and SHARES.

Letters and Telegrams receive immediate personal attention.

BANKERS: ROYAL EXCHANGE (Limited), Cornhill, London.

IMPORTANT NOTICE TO SHAREHOLDERS IN EAST WHEAL LOVELL.

Before paying the call claimed as having been made at a Meeting called for Friday, Oct. 31st, shareholders are earnestly invited to communicate with—

ALFRED E. COOKE, 9, OLD BROAD STREET, LONDON.

MR. JAMES STOCKER, STOCKBROKER, 2, CROWN COURT, THREADNEEDLE STREET, LONDON, E.C.
A ready Market at closest prices for Buyers or Sellers of Shares in British Mines; also Foreign Gold and Silver; and Miscellaneous Stocks and Shares, British and Foreign Funds, Railway Stocks, &c., for cash or account.
BANKERS: LONDON and WESTMINSTER, Lothbury, E.C.
ESTABLISHED 35 YEARS.

Messrs. CLARE and CO., STOCK and SHARE DEALERS, 16, AUSTIN PRIARS, OLD BROAD STREET, E.C.
BANKERS—THE ROYAL EXCHANGE BANK (LIMITED).
SPECIAL BUSINESS in all INDIAN GOLD and SOUTH AFRICAN DIAMOND SHARES.

MR. W. TREGELLAS, 40, BISHOPSGATE STREET WITHIN, E.C.,
Deals in all descriptions of STOCKS and SHARES at close market prices.

HORACE J. TAYLOR, 33, GREAT ST. HELEN'S, LONDON, E.C.,

SPECIAL DEALINGS in the following (or part):—
100 Alaska, 1s. 4d.
100 Bratsberg, 23s. 9d.
100 Balkis, 3s.
100 Cankin Bamoo, 2s.
100 Carn Camborne, 10s. 6d.
100 Callao Bis, 13s. 6d.
100 Chile Gold, 2s. 9d.
100 Colombian Hyd., 10s.
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100 Home Mines Trust, 22s.
100 Indian Consol., 2s. 9d.
100 Javali, 4s.
100 Kapanga, 2s. 9d.
100 Killifreth, 14s.
100 Kimberley No. Block, 10s. 6d.
100 Kongsberg, 10s. 6d.
100 La Plata (New), 5s. 3d.
100 Leadhills, 27s.
100 Lisbon-Berlyn, 5s. 9d.
100 Marke Valley, 12s.
100 Michipicoten, 10s. 6d.
100 Mons, offer wanted.
100 Mounts Bay, 3s.
100 Mysoore Gold, 27s.
100 New Caradon, 1s. 9d.
100 New Callao, 4s.
100 New Emma, 11s.
100 New Kitty, 24s.
100 Nouveau Monde, 29s. 6d.
100 Nundydoo, 7s. 9d.
100 Old Shepherds, 14s.
100 Oregum, 4s.
100 Organos, 11s.
100 Orita, 17s. 6d.
100 Oscar, 12s. 6d. paid, 17s. 6d.
100 Oscar Vendors' shares, 17s. 6d.
100 Polberro, 22s. 1s. 3d.
100 Potosi (New), 13s. 9d.
100 Port Phillip, 2s. 3d.
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100 Oscar, 12s. 6d. paid, 17s. 6d.
100 Oscar Vendors' shares, 17

Registration of New Companies.

The following joint-stock companies have been duly registered:—

THOMAS EVANS (Limited).—Capital 10,000*l.*, in shares of 20*l.* To win and work the collieries known as Tyla Cooch and Nantdyrys Collieries, situated at Treorkey, near Pontypridd. The subscribers (who take one share each) are—John Vaughan, The Garth, Westbyr; Thomas Evans, Werne Pelson; J. Evans, Treorkey; H. Powell, Merthyr Tydvil; David Evans, Merthyr Tydvil; J. Griffiths, Treorkey; and J. Jones, Merthyr Tydvil.

NEW LLANTWIT COAL COMPANY (Limited).—Capital 10,000*l.*, in shares of 10*l.* To purchase from the Llantwit Red Ash Coal Company their goodwill, leasehold property, and to work their coal pits. The subscribers (who take one share each) are—J. Jones, Cardiff; William H. Williams, Gunnersbury; R. Hooper, Cardiff; Edward O. Jones, Cardiff; J. J. Jones, Merthyr Tydvil; David Abraham, Cardiff; J. Rogers, Cardiff.

THE PATENT ARGAND GAS AND OIL BURNERS COMPANY (Limited).—Capital 25,000*l.*, in shares of 2*l.* 10*s.* To purchase new inventions and patents in oil and gas burners and manufacture same. The subscribers (who take one share each) are—W. Page, Sunbury-on-Thames; W. P. Hope, Arundel Gardens; Alexander Brown, 44, Piccadilly; J. F. Harrison, Wingham-square; R. J. Strangman, St. Helen's-place; A. Kirby, Great Winchester-street; George Lewis, Fish-street Hill.

GOWER IRON AND TIN-PLATE COMPANY (Limited).—Capital 20,000*l.*, in shares of 50*l.* To purchase, lease, and acquire coal, iron, and tin works, and carry on the same. The subscribers (who take one share each) are—G. H. Birkbeck, Southampton Buildings; George Birkbeck, Barrow-in-Furness; W. L. Birkbeck, Stone Buildings, Lincoln's Inn; F. Birkbeck, Colnett-road, Putney; A. Birkbeck, Colnett-road, Putney; Henry Birkbeck, Southampton Buildings; J. Birkbeck, Great Winchester-street.

THE NEW LAST CHANCE SILVER MINING COMPANY (Limited). Capital 100,000*l.*, in shares of 1*l.* Formed to purchase mining property situated in the Salt Lake County, in the Territory of Utah, U.S.A., known as the Last Chance, Hooper, Oplunt, and Silver Maid Mine. The subscribers (who take one share each) are—F. J. Minton, Mann-street, Walworth; J. W. Lance, Byrne-road, Balham; H. J. Keen, Camplin-street, New Cross; J. H. Evans, Muswell Hill; H. R. Bute, Sussex-road, Holloway; M. M. Moore, Lombard-street; and H. E. Millington, Sidney-road, Stockwell.

WILLIAM ANDREWS (Limited).—Capital 5000*l.*, in shares of 5*l.* Formed to purchase and take over the bicycle manufacturing business of William Andrews, of the Victoria Works, Aston, Birmingham. The subscribers (who take one share each) are—J. Dreer, Gwery-street; T. F. Pidley, Bunst-street; T. S. Stamper, Shadwell-street; P. Hooper, Marville-street; J. A. Lamplough, Great Colman-street; G. F. Brown, Great Colman-street; and T. Warwick, Alma-street, Aston.

THE DITCHLING TERRA COTTA BRICK AND TILE COMPANY (Limited).—Capital 10,000*l.*, in shares of 1*l.* To acquire by purchase on lease certain lands situated at Ditchling and West Meston, in the county of Sussex, and to carry on the business of brick and tile makers. The subscribers (who take one share each) are—J. Clemence, Duke-street, Adelphi; Frank Clemence, Alfred-place, West; Stephen G. Huntley, York-place; S. C. Colman, King William-street; William Colman, Finsbury Circus; B. Smart, Queen Victoria-street; William Robson, Cambridge-road, Wanstead, Essex.

THE BEACONSFIELD DWELLING COMPANY.—Capital 500,000*l.*, in shares of 10*l.* To purchase or acquire on lease land for building purposes. The subscribers (who take one share each) are—Sydney Day, Union-court, Old Broad-street; R. Paudon, 79, Mark-lane; James Coombs, Alibut-terrace; Thomas Linsell, 2, Gresham Buildings; Frank Gifford, Westbourne Villas, Bayswater; A. S. Felton, 7, Westminster Chambers; F. T. Jennings, R.N., St. James's.

THE FRIZINGTON MINING COMPANY (Limited).—Capital 30,000*l.*, in shares of 100*l.* To acquire, according to the terms of an agreement with the Frizington Mining Company, and to take over the lands, machinery, buildings, plant, and rolling stock for the purpose of carrying on the business of mining. The subscribers (who take 20 shares each) are—J. C. Brown, Cleator, Cumberland; William McCowan, Roseneath, Whitehaven; John Moore, Egremont, Cumberland; Andrew Johnston, High-street, Whitehaven; William Dalzell, Whitehaven; T. Dalzell, Litherland Alley, Liverpool; Joseph Hoult, Wellington Buildings, South Castle-street, Liverpool.

MINING AND METALLURGICAL PATENTS.

Supplied by Mr. ERNEST DE PASS, of Fleet-street, E.C., Fellow of the Institute of Patent Agents.

Amongst recent applications for patents, in which the readers of the *Mining Journal* are more immediately interested, are the following:—

G. R. Cooke, Wapping, No. 14,409, Construction of wire-ropes.—T. Vosper, Hackney, No. 14,422, Tram and railway cars.—C. Morel, Paris, No. 14,426, Mill for crushing or grinding hard materials.—F. Arnott, London, No. 14,427, Apparatus to be applied in connection with coke ovens for conducting away gases, and for receiving the condensable constituents as they separate therefrom.—The Stearns Railway Improvement Company, United States, No. 14,429, Self-adjusting bearings for car axles.—M. W. Bullen, Durham, No. 14,434, Starting and stopping locomotive and other engines.—J. T. Dawes, London, No. 14,439, Compound steam-engines and compressing air-engines.—E. J. C. Welch, London, No. 14,441, Valve apparatus for controlling the action of steam, vacuum, and other brakes.—G. Temple and J. Willis, Attercliffe, No. 14,447, Spring piston blocks.—G. C. Fricker, Putney, No. 14,448, Electric arc lamps.—J. G. Lawrie, Glasgow, Making corrugated boiler furnace shells of cast-steel, in part applicable to making other cast-steel articles.—J. Farrar, E. H. Birley, and T. Dunstan, Barnsley, No. 14,453, Friction gear for winding or hauling apparatus or machinery.—L. Pouget, France, No. 14,459, Lubricators.—J. Wilkes, London, No. 14,469, Manufacture of fluted metallic tubes and machinery therefor.—H. Foersterling, Charlottenburg, No. 14,484, Process of casting flanged pipes or tubes with bolt holes.—A. M'Laine, Belfast, No. 14,490, Forced combustion in steam-boilers.—J. Proctor, Manchester, No. 14,493, Mechanical stokers.—J. Enright, London, No. 14,496, Railway signalling.

The following selected specifications have been recently published, and are now open to inspection and opposition:—

SEATINGS FOR VALVES AND TAPS.—M. M. Brophy, No. 148.—In screw down or other types of disc valves the seating is formed of hard metal, such as phosphor-bronze, having a sharp edge at an angle of about 30°, which enters a ring of softer metal in the valve face.

CONSTRUCTION OF COCKS OR VALVES.—B. Rhodes, No. 689.—The plug is made parallel, and of an elastic material. It enters freely into the barrel against which it is tightened by pressure applied to its top and bottom surfaces when being screwed down.

A SELF-ACTING LIFE SAVING MACHINE FOR MINE SHAFTS AND HOISTS.—F. H. Smith, No. 1214.—This consists in placing one or two cylinders above the cage with pistons working in them so as to form a vacuum below the piston, the power of the cylinders being adjusted to nearly balance the weight of the cage when empty. In the event of the cage breaking away atmospheric air would rush into the vacuum, force down the pistons, and with them catches, which would take into racks or sides of the mine shaft or hoist.

COUPLINGS FOR RAILWAY ROLLING STOCK.—J. and G. Gaskell, No. 2997.—Instead of bolting the shackle to the draw bar, the draw hook shank is formed with a second hook so as to allow of the use of a simple link instead of a shackle. An abutment prevents the shank from going too far into the buffer-plate.

FURNACE FOR REDUCING ZINC AND OTHER METALS.—G. W. von Nawrocki, No. 4955 (a communication from J. Quaglio, Frankfurt-on-Maine, and J. Pintsch and A. Lentz, Berlin).—This invention has for its object to convert the carbonic acid into carbonic oxide to be used as fuel. Two vertical furnaces are placed side by side, and connected at the top by a horizontal passage. The gases, vaporised metals, and metallic oxides are drawn from one furnace to the other to be completely reduced, and the carbonic acid converted into carbonic oxide.

APPARATUS OR MACHINES FOR BENDING TUBES OR PIPES.—

W. B. Lake, London, No. 11,911 (a communication from E. P. Holmes, Rochester, U.S.A.).—The tubes to be bent are placed on a grooved bed having a circular head, over which a grooved die is moved so as to produce the bend.

MANCHESTER GEOLOGICAL SOCIETY.

The ordinary meeting of members was held at the rooms of the Literary and Philosophical Society, Manchester, on Tuesday (Mr. G. C. GREENWELL, the newly-elected President, in the chair), and there was a good attendance of members.

The PRESIDENT delivered his inaugural address. He said that 17 years ago they had elected him their President, and for the honour they had again conferred upon him he begged them to accept his most hearty thanks. He had been at all times pleased when reading the papers which had been contributed to the society to find that they maintained the credit of the past, particularly as regarded their practical character. Many discoveries had been made, and the object of societies such as this ought to be to endeavour to apply these discoveries as far as the same were applicable to practice. One example of what he meant was to be found in the important results which had been obtained by the agency of electricity. There was still much room for improvement, and with the electric light made portable, so as to take it into our coal mines, we might conduct our works with greater safety, and this was a result which he considered it was by no means improbable would soon be attained. In venturing to approach another part of their general object, and which he did in a spirit he hoped would not be misunderstood, he could not help expressing the fear that they were sometimes too prone to theorise. It seemed to him a great pity that to observing and recording facts of the greatest value, they should waste so much of their time in manufacturing theories. He could refer to many papers which had their value considerably diminished by theories, and he thought that their omission would be most beneficial. He believed that in most societies of a kindred character to theirs many a member was deterred from preparing and reading a paper, because he thought that to write something he must produce something elaborate. There were few things that passed under our ordinary observation that were not worth recording, and a mere, but accurate record of such was of the greatest value, and there was not one amongst them who could not contribute to the information of his fellow members. The chief result of this course of procedure would be the great encouragement which would be given to discussion, owing to the strong probability that similar observations had been made by others, and this would undoubtedly tend to the establishment of facts. Of course, by the above nothing was meant to be said to discourage the production of papers; his wish was to encourage those who did not write them to contribute that which in a remarkable degree would be advantageous to the Society at comparatively little trouble to themselves. After illustrating the point he meant to enforce by extracts of observation he had entered in his own diary, in which he had simply made a record of facts without comment, the President, in conclusion, said he was not, and no doubt his hearers were not, in favour of long addresses. He should not attempt to recapitulate what had been done in the geological world during the past year, but should content himself with the one or two subjects he had simply placed before them for their consideration, and which he wished to be viewed more in the light of suggestions than of advice.

Mr. JOSEPH DICKINSON, H.M. Chief Inspector of Mines, moved that the best thanks of the meeting be given to their new President for the address he had delivered, and he hoped that the advice which had been given to members with reference to the contribution of papers would be acted upon.

Mr. BURNETT seconded the motion, which was agreed to unanimously, and the PRESIDENT briefly expressed his thanks.

THE EFFECT OF COAL DUST ON MINE EXPLOSIONS.

Mr. J. S. MARTIN, Inspector of Mines (hon. sec.), read from an article which had appeared in the *Glück Auf Berg-und Hüttenmännische Zeitung* a description of a series of experiments that had been made by a Government Commission in Germany, with the object of testing the effects produced by coal dust in explosions in mines, and he added that he had received a letter from Mr. Galloway, who had taken a great interest in this subject, and he fully corroborated the results obtained, which were simply confirmatory of the views Mr. Galloway had previously expressed. Mr. Galloway, who had just returned from seeing the coal dust experiments, stated that these experiments had been made aboveground, in a wooden gallery, similar to one he had used, but larger. The initial disturbance was effected by firing a shot with $\frac{1}{2}$ lb. of gunpowder, and the results were startling and marvellous. With 20 metres of the floor covered thinly with a dust from a mine called Pluto, and 10 metres of the gallery next the shot filled with a mixture of the fire-damp and 20 air, the flame shot out 185 to 190 ft. in a second of time, with a noise like the bursting of a magazine, and a tram weighing 12 or 14 cwt. standing on the rails at the mouth of the gallery was hauled along the rails 52 ft. and driven off the metals, the rails being inclined up at an angle of 4°.

The PRESIDENT said there was no question that coal dust in mines contributed very seriously to the effects of an explosion, but there seemed to be some doubt as to the precise manner in which it acted. There was also no question that the burning of gunpowder would turn dust into explosive gas, and an explosion was assisted even without fire-damp. A small explosion might be produced even with very little gas at all.

Mr. M. STIRRUP (hon. sec.) referred to what had been done in this country to test, by means of experiments, the effects of coal dust on explosions. Mr. Galloway has worked for some time on this subject, and he had given his results, which could be found for reference in the library of that society. In his (Mr. Stirrup's) opinion, if the air were filled with any very fine particles of material, whether they were coal dust or not, it was in a more explosive state.

Mr. DICKINSON said his views on the subject were well known. The question was not a new one, and at one of the Wigan collieries, 30 years ago, the subject was then gone into as one of the aggravating causes of an explosion, by which 100 lives were lost.

The subject then dropped, and, after a short discussion on a paper by Mr. J. D. Kendall, "On the Mineral Veins of the Lake District," read at a previous meeting, the proceedings were brought to a close.

ROYAL GEOGRAPHICAL SOCIETY.—At the opening meeting of this society on Monday evening, Lord ABERDARE (the President) in the chair, Mr. JOSEPH THOMSON read a paper entitled "Through the Masia Country to Victoria Nyanza." The author stated that he started from Zanzibar with a caravan of 140 men, the head men being splendid fellows, but the rank and file—120 porters—were the very offscouring of Zanzibar villany, and altogether they formed one of the most disreputable caravans that ever left the coast. After describing the difficulties he had in controlling this lawless crew, and the dangers of the route he had chosen, he dwelt upon their first meeting with any considerable number of the Masai. Their life was rendered wretched by the unscrupulous savages, who persisted in invading the camp. No man dared lay aside his gun, or leave a single object exposed to view, and it was only in large numbers that they dared go outside the camp to draw water. Then the Masai tribes, the reader said, a more remarkable race did not exist in the two hemispheres. In their physique, manners, and customs, and religious beliefs they are distinct alike from the true negroes and from the Galla and Somali. They were the most magnificently modelled savages he had ever seen or read of. They suffered terribly from lack of food, owing to a disease which had attacked the Masai cattle, sweeping them off in myriads. Till nearly the close of the journey out Mr. Thomson enjoyed fairly good health, but later his luck in this matter fled—in his own words, he "just recovered from fever to be nearly killed by a buffalo; and only got over the effects of that adventure to fall a prey to the fell disease, dysentery." The march back was, however, duly performed in safety, and he had penetrated some of the most dangerous districts without the loss of a single life by violence, or the necessity of shooting a single native.

ROYAL GEOLOGICAL SOCIETY OF CORNWALL.

The annual meeting of this society was held at the Public Buildings, Penzance, on Tuesday, when Prof. WARINGTON SMYTH, F.R.S., President, occupied the chair. In the course of his presidential address Prof. Warington Smyth said that his predecessor in that chair (Mr. Leonard Courtney, M.P.) had conferred a signal service on them by reminding them in his addresses of the importance of geological science in directions other than the pursuit of wealth and the acquisition of material advantages. He had testified to the elevating effect it had on the mind of man, and had shown how educated people had found it necessary to alter the scope of many of their old ideas and adopt conclusions connected with a greater expansion of thought. More particularly he had impressed upon them the total change which the facts of geology had wrought in the old feeling of the permanence of the outward forms of Nature, pointing out how we are still placed in the midst of a condition of mutation, advancing sometimes by long periods of slow and gentle action, at others by startling outbursts of catastrophe. The lecturer went on to say that an observer, standing where they were and extending his gaze to the Bristol Channel and Wales on the one side, and to Brittany on the other, embraces an area of the most attractive and fertile character, not only of the phenomena of the older rock formations, but also of the changes of recent or modern times.

Much light had been thrown on these changes by papers in the past, and to-day they hoped that further information will bring home more fully to them the evidence of remarkable interchange of sea and land. That evidence in part lay within half a dozen miles of their doors at St. Erth, but the due interpretation of that evidence required the aid of experienced persons. The simple outline of the discovery made in that neighbourhood was, that the shells found in the fine clay associated with sand, which forms a patch of new strata spread on the surface of the killas, or old slate rock north of St. Erth, were of distinctly marine origin. Therefore, it seems that they had the sea rolling its waves far above the surface of our present low ground, or, more correctly speaking, the land was subjected to so considerable a depression as to have submerged it under a tertiary (pleiocene) sea. The lecturer then went on to say the Cambrian strata, of which in Cornwall we appear to own a considerable area, is in several points very insufficiently defined, and as for the Archaean, it has only been limited at as probable. How is it that nothing is to be met with in Cornwall of nearly 30,000 ft. thick of strata which have been deposited as sediments in other parts of England? Or is it possible that some or even many of them may have been deposited at their proper time, and may have afterwards been removed by natural wear and tear, rain, frost, rivers, breakers, and sea currents? Having spoken of the formation at the Black Downs, in Devonshire, saying it was very probable there that many miles of intervening arenaceous deposit had been swept away in the course of ages, leaving only fragmentary relics to tell the tale of the extensive deposit which once occupied, in the western portion of the sister county, a part of the sea-bottom, stretching away thence to the East of England, and now what was called Continental Europe. He observed, that in the course of the history of geology, beginning with the early part of the century, a nomenclature had sprung up, partly English and partly foreign. The names of groups and series of strata had been derived sometimes from districts, at others from local terms, and occasionally from well-considered scientific reasons. It had now been thought that the grouping of the minor divisions, as well as the terms by which both principal and subordinate groups were to be known, might be so amended as to pass current for Europe at least, even if it be not feasible to apply them to other quarters of the world. He expressed his doubt as to whether this "European concert" would be a success, remarking that it was likely that although some of the leading lines might be amended, most countries would prefer to retain some of these sub-divisions and appellations which were most descriptive of their own peculiarities of stratification. He praised the efforts of Mr. W. T. Blandford, F.R.S., in the direction of the classification of nomenclature. He referred to the discussions at the British Association meeting at Montreal, to the surveys which had for years been made in the United States, and to a work by an eminent mineralogist (Professor von Rath) on the strata of the Pacific slopes. He alluded to the mineral-bearing States of America. Speaking of Nevada, he said that during 15 years there were produced from a single lode (the Comstock) the unprecedented amounts of gold and silver to the value of 63,000,000*l.* Nevada rose suddenly, and its downfall, as a prosperous State, might have been averted had the people been provident. One of the mines—Consolidated Virginia—with a length of only 711 ft. on the run of the lode produced in six years over 12,000,000*l.* of gold and silver, giving a profit of over 8,000,000*l.* This mine had been sunk to a depth of 516 fms., yet now not a trace of ore was to be seen. A neighbouring mine, which had been very rich, had also been abandoned. He commented upon the great heat in these mines in depth, and this feature he ascribed to the lode itself. He remarked that among the various difficulties which shortened the lives of mining enterprise there was no doubt that of imprevi- dence, and too hurried a grasping at making the most of the present, was a fault not unknown in other districts besides Nevada.

DRAINAGE IN MINES.—A monthly meeting of the South Staffordshire Mines Drainage Commissioners was held at Wolverhampton on Wednesday. Mr. Walter Williams (Chairman) presided. Accounts amounting to 11,005*l.* 6*s.* 9*d.* were passed for payment. Of this sum 7823*l.* 0*s.* 11*d.* was for mines drainage, and 3182*l.* 5*s.* 10*d.* for general drainage. The Chairman explained that the amount was considerably more than usual, owing to creditors having delayed their applications in consequence of the strike. The mining engineer (Mr. Terry) reported the water had sunk at Stow Heath by 2 ft. 6 in., at Merrell's Hole 2 ft. 6 in., at Portobello 2 ft. 5 in., at Rough Hay 6 in., and at Cole's Hall 1 ft. The lifts at Rough Hay and Stow Heath had been lowered 9 ft. The plunger chambers of the new engine at the Moat and Bradley were being made. Nearly 300 yards of levels had been completed between the Moat and Gospel Oak. The level towards Cotterill's Farm had been driven in far enough to bore up and tap the water in the new mine only. The lift from the Bye Pit, Gospel Oak, to No. 3 Bradley was driven up to within 10 yards of the distance it had to go, and bore-holes were being put in to tap the water. The level towards Horseley was 190 yards in strong rock. The pumps at Horseley had been lowered 9 ft. Mr. E. B. Marten's report on the surface drainage showed that full advantage had been taken of the remarkably fine season to push on the important culvert from Monmore towards the Fighting Cocks, and it now neared completion. No less valuable and efficient work had been done, according to the requirements of the several localities, at Portobello, The Brades, Albion, Hateley Heath, Millfields, Askew Bridge Pool, The Lye, Old Hill, and elsewhere. The Chairman stated that the committee appointed to enquire into the question of the Bromley Pound had met, and would soon, he hoped, be able to present a report. After Mr. Mason had complained of the quantity of water in Bagnall's Pool Mr. Richard Williams enquired whether, as the result of the lowering of the water in the Tipton district, any new collieries were being worked which had been before submerged? The Chairman said they had heard that as the result of the pumping some proprietors had raised three and four times as much as before, and of others who were about to restart. He said that the delinquents who were letting water into the mine were being gradually found out.

DEEP ARTESIAN BORING.—At Vange, near Pitsea, in Essex, Messrs. Le Grand and Sutcliffe, of London, have just struck chalk at the depth of 524 ft. from the surface. Considerable uncertainty existed as to the depth the tertiary formation extended in this part of Essex, and geologists have been much interested in the progress of this boring. No less than 395 ft. of London clay had to be penetrated before meeting with the lower tertiary beds, which latter have thus proved to be 129 ft. thick. The probable total depth of the tube will be over 600 ft., and it is expected this will be completed within the next three weeks, as the progress of the boring has lately averaged about 6 ft. per day.

MINING IN BORNEO.

Although it cannot be said that the mining industry of Borneo is very extensive, yet it is, like trade generally in that island, on the increase, and indeed the coal trade may play a very important part in its development. Some very interesting facts concerning this, which may be of some interest to our readers, and which we consequently subjoin, are given in a report of Acting Consul General FACHNER for 1883. The report states that 3182 tons of coal of a value of \$19,022 were exported in lighters from the Muara Mines to Labuan, where it was sold at \$7 a ton to steamers. Mr. Leys alluded to this British enterprise in his report for 1882. I am glad to be able to state that there seems a good chance of success attending the venture, as the coal is suitable for the numerous local steamers running in the waters of the Straits Settlements, the Philippines, and China. At present this coal is supplied regularly at Labuan to three British steamers trading between Singapore and North Borneo, but until a wholesale market has been found for the coal at Singapore, Hongkong, or elsewhere, it would be unwise to make any predictions as to the position it will finally obtain. It will be seen from Vice-Consul Hardie's report that a market is springing up in Singapore for Sarawak coal, which is certainly not superior to that from Muara. The promoters now hold a monopoly for a term of years from the Sultan of all the coal in the extensive district lying between Nosong Point and the Tutong river. During the year a British subject obtained concessions of extensive mineral rights (except coal) in the Sultan's territories, but has not yet commenced operations. The Government mine at Sadong yielded 5038 tons of coal in 1883, being an increase of 2423 tons on the 1881 output, 3720 tons on the 1882 output. This was mainly consumed by the steamship Rance, whose engineer speaks well of the coal for steaming purposes, and the local Government steamers: 18 tons were supplied to H.B.M.'s gunboat Moorhen, and the surplus shipped to Singapore, where a demand appears to be springing up for this coal. The export of antimony which in 1881 amounted to 1856 tons, in 1882 to 1440 tons, fell in 1883 to 1361 tons; and there can be no doubt that this result is in a great measure to be accounted for by a falling off in the supply, as old workings have been exhausted. Efforts are being made to prospect more thoroughly the district of

Upper Sarawak, where alone antimony has hitherto been found in quantity which it is to be hoped may be successful.

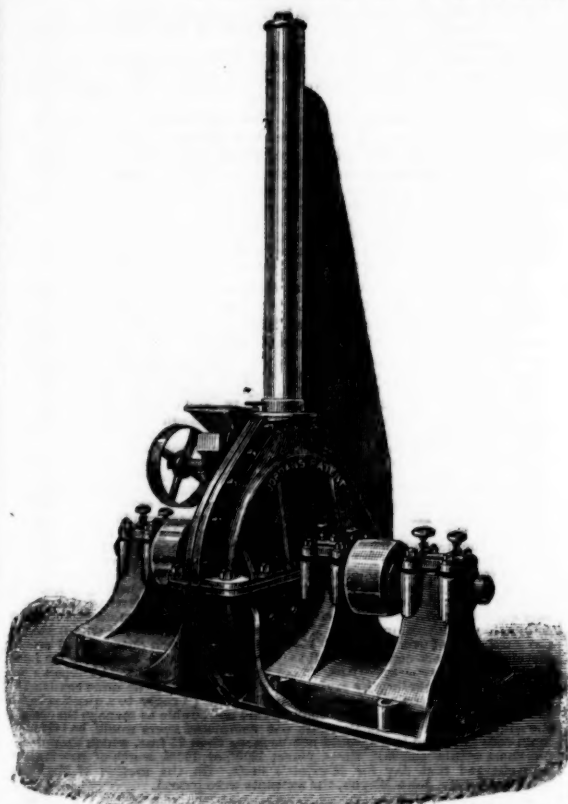
The export of quicksilver has fluctuated considerably during the past three years, falling from 1910 flasks in 1881 to 489 in 1882, and again rising to 1400 in 1883, which in a measure is to be accounted for by the irregular seasons in which the retorting work is done, also to a sensible falling off in the supply of ore.

Gold, which is worked to some considerable extent in Sarawak, adds very little to the value of the foreign exports. The total exports being—1881, \$2918; 1882, \$1380; 1883, \$234. From which it may be inferred that the increasing wealth of the inhabitants enables them to absorb more of this metal for personal ornamentation.

TECHNICAL EDUCATION.—Mr. A. J. Mundella, M.P., presented the Queen's prizes and certificates to the successful students in the Metropolitan drawing classes on Monday evening. The ceremony took place in the Guildhall, under the presidency of the Lord Mayor. Mr. W. Busbridge, director, stated in his report that the classes which had been in existence for 19 years were established to provide a special course of training for the working classes in what might be called the science of their trade. During the past year 700 students had attended at the 23 centres. Mr. Mundella, in the course of his address, congratulated those present that they had entered upon a really useful career; clerks, he said, were superabundant everywhere. He hoped that the result of their training would be less cause for complaint with regard to bad plumbing, scamped joinery, and defective drains and sanitary arrangements.

THE MANCHESTER COAL EXCHANGE.—Mr. Joseph Hodgson, who has held the office of secretary to the Manchester Coal Exchange since its formation, having intimated his intention of resigning this position owing to the pressure of other engagements, the committee have decided to appoint Mr. T. W. Sowerbutte to the office. It has also been decided, in order to meet the convenience of new members joining the Exchange at various periods of the year, to issue tickets for 15 and 18 months at a *pro rata* charge on the usual annual tickets taken at the commencement of the year.

JORDAN'S PATENT PULVERISER.

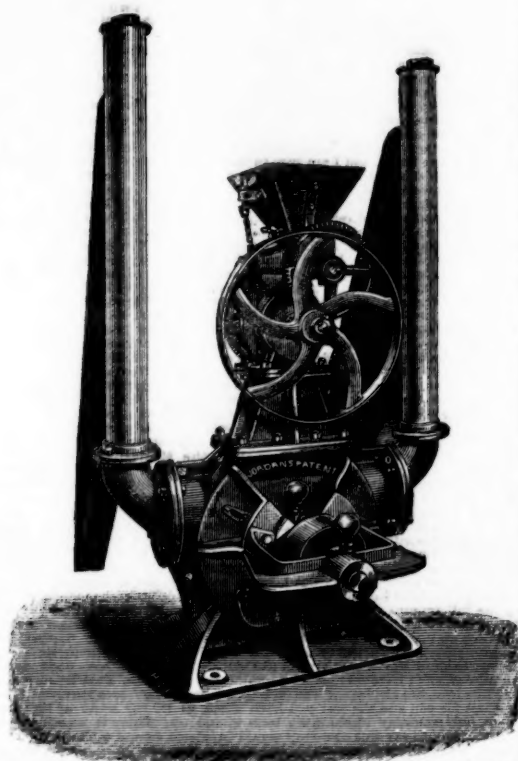


JORDAN'S PATENT PULVERISER.

This machine has now been before the public for some four years, during which time it has passed through severe practical tests, and large numbers have been adopted for reducing various materials of different natures, such as minerals, cereals, manures, earths, &c. The manufacturers have adopted these machines at their own grinding mills, have had every facility for watching them in constant action, and the result of this practical experience is that important modifications as to details of construction have from time to time been introduced with a view to—1. Producing the greatest effect with a minimum expenditure of power.—2. Simplifying the machine and making its action as automatic as possible.—3. Reducing the number of wearing parts and so constructing such parts as to render them cheaply and easily replaceable.

A short description of the machine and the manner in which it operates may serve to show how these advantages have been obtained. Two circular dished castings, each having a long bearing projecting from their centres, are bolted together by flanges and form the crushing chamber. This chamber has an inlet opening on the top, and two outlet openings, one on each side of the machine; the two bearings carry short wrought-iron spindles, which are also supported by two outer bearings; these spindles meet end to end in the centre of the crushing chamber. On the inner end of each spindle is keyed a set of four arms nearly the diameter of the chamber, the surfaces of the one set of arms being so angled that they are parallel with and face those of the other set. These arms or beaters are caused to revolve in opposite directions and the roots or bosses are so formed as to create a blowing or fan action, inducing a current of air through openings in the sides, and near the centre of the chamber casing, on the outer end of both spindles, and between the outer and inner bearings are keyed pulleys for driving by belts, the spindles and their arms and pulleys being quite free and independent of each other, and revolving in reverse directions; one of the said pulleys also drives the automatic feeder, which is adjustable, and regulates the rate at which the material to be crushed is fed into the crushing chamber. The outlet pipes convey the fine powder to the receiving chamber. By means of driving belts on the pulleys the spindles and their arms are revolved in reverse directions at any suitable speed for the material to be crushed. The material falling into the chamber from the automatic feeder is struck by one of the arms (owing to the angle of its face) into the path of those revolving in the reverse direction, and is by them for the same reason immediately returned, thus it is with great force struck to and fro from arm to arm until as fine as required. There is therefore no grinding action, the crushing being done entirely by percussion or impact, but without centrifugal force. This is the whole process of crushing.

The fineness of the material leaving the machine is regulated by the current of air, which immediately takes away all particles light enough for its force to suspend, and the force of this current can be adjusted to the greatest nicety by simply closing or opening the apertures in the casing for this purpose. The a current in the machine is sufficient to carry the crushed material up 5 ft. or 10 ft. of



pipes to a collecting chamber, the height of which column of pipes also regulates the size of the particles delivered. On reaching the receiving chamber the velocity of the air current is gradually reduced in proportion as the area of the passages through which it is conveying the fine powder is increased, the result being that the fine powder is deposited either in bulk to one outlet at the bottom of the chamber or in separate compartments, thus dividing the different degrees of fineness. This illustrates a section of a collecting chamber, and the partitions for regulating and directing the passage of the air current.

It will be seen, then, that in this novel machine there is no grinding action or frictional surfaces, the reduction being done entirely by impact against solid masses of the hardest metal, which take years to wear away, and are then easily replaced at a trifling cost. No other part of the machine is acted upon by the material, so that wear and tear is reduced to a minimum. The air current which is constantly passing through the machine keeps it cool, and causes the material being crushed to pass immediately it is as fine as required; that is to say, without placing any obstacle in front of the large openings, such as gratings or sieves. No particle can leave the machine until it is fine enough to be suspended or carried out by the air current, the strength of which can be regulated to any extent. The result, therefore, is that the machine is always kept free to act on crude stuff, and a maximum amount of material is reduced with a minimum expenditure of power, while powder of any degree of fineness is automatically delivered direct from the machine without the use of gratings or sieving apparatus. These machines have been adopted by the British Government at the Arsenal for reducing coal and other substances, and at branches of the Mint for powdering the metallic dresses, and large numbers are in use in all parts of the world for reducing an infinite variety of substances, such as ores, slags, manures, cereals, cements, barks, in the treatment of which it is claimed to have advantages as a fine reducing machine of—1. Extreme simplicity. The effective grinding action being confined to the arms alone.—2. Complete in itself and self-contained. The automatic feeding, crushing, and separating being done in one machine, one process (that is, by once passing through the machine) and by the same power.—3. Very slight wear and tear. The arms only (and never the casing) being acted on by the material, and these being of considerable substance and hard metal last a long time, and cost little to replace, and also because sieves are avoided altogether.—4. Great saving of power, there being no grinding action or friction between the parts of the machine, and because the crushed material leaves the machine immediately in the state required, giving place to fresh crude stuff.—5. Great saving of labour, because no sieving is required, or returning of material to the machine necessary, since it cannot possibly eject any particle until as fine as required, and because pieces from 1 in. to 2½ in. cube can be reduced to the finest powder at one process.—6. Great saving of first cost, because the machine is cheap, and does the work of varied plant necessary in other processes.—7. Saving of space, which is of great importance in large works.

The makers—Messrs. T. B. Jordan, Son, and Company, of London—are prepared to show these machines in action at any time to those interested

HOW INVESTORS HAVE ERRED, AND HOW THEY SHOULD INVEST.

There is in this country a very considerable number of people forming what is commonly called the investing public. Those people have comparatively small fortunes, and look to the income they can get from it to form by itself, or with the addition of salaries, the means of their living in the way they have been always accustomed to, without waste or luxury, but in genial comfort and easy competence. Through the progressive rise in the price of everything being aggravated by a corresponding decline in the value or returns of money, the great mass of that numerous class of people have gradually come to find it most difficult to make, as the saying goes, "both ends meet." The kind of securities in which wise and prudent men could safely invest not many years ago, with a yearly return of 5 or 6 per cent., are no longer accessible except to a very few peculiarly favoured ones. The spirit of speculation has, consequently, and it may be said, necessarily, taken the place of that prudent and wise moderation of old which has been conquered over by the impossibility of applying itself with satisfactory result. To that compulsory want of the investing public of finding in speculative transactions the means of making its money produce what sounder and safer investments could no longer procure must be attributed the periodical submission by that public to the "fevers" or manias which have taken it at successive periods during the last 20 years. We have thus seen the Colorado, Nevada, and other North American mines of the famous Emma period; then a lull, to which succeeded the rush in petroleum and other oil concerns. After the plunge and drowning in those adventures came a fresh calm, which, however, was not of long duration, and was followed by the Indian, Mexican, and South American gold mine fever. A fresh lull was then brought on by the necessity of gathering fresh means for running into something new for the recovery of previous losses. The field was then opened for the electricity mania to operate upon the investing public. When its renewed resources had been "brushed" into tangible cinders by the innumerable lighting, telegraphing, telephoning, motive, and other power concerns, the investing public forcibly paused again. The cattle ranch and other waste land and wilderness appropriation schemes soon took the field, and once more investors took to a rush, and went headlong into a mania. Another period of calm has now been produced, which a little buzz about South and West African and Transvaal golden schemes has not effectually disturbed. What will now be the next mania? We would hesitate before trying to give an answer to this question. One thing may be surmised, and that is the opinion many people seem to entertain, that the investing public will not easily allow itself to be taken up for some time to come by any frenzy for far away adventures. It cannot forget, nor easily forgive, the deceptions which have almost invariably been served out to it, in return for the blind confidence with which it has given its money to be sunk or drowned in all kinds of transoceanic enterprises. Its faith is no longer easily placed in the glowing prospects tendered to it by circulars and prospectuses. It will not be so quickly persuaded to trust to the assertions, or to lay its confidence in the management of directors with bracketed names in lieu of experience. It will seek for such enterprises as will be near enough home to permit of easy control by all adventurers acting in unison with or, if necessary, in opposition to the managing bodies.

The next revival of activity on the part of the investing public will, very likely, exercise itself under those conditions. Then the question comes—Where and what is, at home, the field that may be offered for that revived activity to exercise itself? Notwithstanding all that has been and is still said against mines or mining enterprises—and let it be emphatically stated that no kind of industrial operations has been more unjustly slandered by would-be oracles of public opinion—a mass of the investing public wisely perceive that mining enterprises are after all those in which, all being considered, investors have been least jobbed out of their money. We mean, of course, such mining enterprises as those situated in this country and in parts of Europe not far distant from our shores.

Our home mines, unfortunately, do not at present offer any reasonable ground for basing prospects of such returns for capital as investors are bound by necessity to seek for. Our mines are almost without exception—speaking of metallic mines—yielding copper, tin, and lead, since iron is quite out of the question. The markets for those three metals are lamentably depressed. Lead is in all appearances doomed to keep for a long time its present unremunerative and low prices. Tin seems on the declining slope for a long future. The newly discovered and now opening tin deposits of Malacca and North Australia must fatally contribute to furthering the decline in the presence of no apparent chances for any relieving extension of the present demand. Copper has fallen very low. But its sources of production are gradually exhausting, and the slightest move in the way of finding for the metal some fresh and extensive employment would very quickly raise the price on European markets. But unfortunately for us our English copper mines are, with some exceptions, not likely to offer great inducement to investors. They are—especially in the present conditions of the market—too costly to work to give such profits as the mass of investors are anxious to obtain for their money.

The attention and favours of the investing public may, and will, therefore be directed towards such mining concerns as may be situated in European countries, and preference will naturally be given to the mines capable of producing anything but lead, zinc, and tin. Norway and Sweden, with their gold mines, have already taken a great deal of the favour of investors; more attention may be paid to them. Spanish silver mines would probably redeem part of their lost favour if true silver mines without too much lead in them were effectually proved to exist in Spain, and capable of giving profits, beyond the very few mines of the kind already tested and successfully worked by English companies.

France, we think, may properly come forward with some good mines, which our investing public would do well to take up. We cannot help being always painfully surprised to find people persisting in the fault of looking to North, Central, and South America for good paying silver mines, and of sending their money far away from their control to work those mines, when we know, and everybody could learn, that there are in France, within 30 or 40 hours' journey from London some silver-lead mines quite capable of giving far better results than any transatlantic mines of the same kind. There is a district of France which is abounding with very reasonably rich silver-lead lodes. The chief locality of that district owes its name to that abundance of the precious metal in its neighbourhood. No mining engineer, and no person who has studied or perused treatises on mineralogy, or visited mineralogical museums, ignores the name of Argentière, the locality we are speaking of. Not far from this are the now very old, and still at present worked, silver-lead mines of Vialas, recently acquired by the Great Mokta-el-Hadid Company. At no great distance from this district, and almost in the same part of France, are the mines of Pontgibaud, well known in our English mining market. Within a few miles from Vialas, and between it and Argentière, runs the valley of the River Drobie, which abounds in silver-lead and copper deposits.

There is no possible doubt that the valley of the Drobie would not have remained closed, as it has been hitherto, to the operations of mining adventurers in search of certain and profitable results, if that valley situated in the heart of the Cevennes Mountains had been of more easy access. How could the natives of the district, even if they could dispose of capital which they do not possess, think of working mines without roads to accede to them, and to facilitate their working? So it is that a large concession granted by the French Government after extensive preliminary tests of the deposits and good evidence of their real value, has been forcibly left to this day without the development it fully deserves. Now this concession has become easily accessible by various good roads, which the French Government has executed, and the valley of the Drobie can no longer remain closed to the profitable operations of industrious miners. The importance of this new field of mining enterprise will be sufficiently indicated when we have said that average samples of ores taken from levels opened upon several lodes in that valley have been found to assay from 10 to 20 per cent. of copper, and up to

manager, demonstrates the rotten reef to be exceedingly rich and valuable. The shares are quoted 3 to 11."

composed of capel, yellow ore, and a little tin, but not sufficient to value; drove last month with rock-drops 7 fms. Machinery working well.

STANDARD LEAD.—W. H. Borlase, Nov. 6: The lode in the 45, west of shaft, is again opening, and is now opening into spar of a singular character for lead. The workings are very good, and rise up as much as they will be hoisted to-morrow, after which we shall soon strip it down to the 33. The wheel-pit is completed, and I calculate to put the bed timbers on to-morrow. We have now a full supply of water, and the dressing department is in full work.

—Nov. 7: Telegram : The new shaft and riser hosed last night straight in line with each other. A good job done.

TREBARTHA LEMARNE.—W. Skewis, Nov. 5: The lode in the back of adit containing too few of about the same size and value. The stoping is being carried on by six men at present, and the price of its sale will be between £80 and £90 per ton. It was taken from the Gully lode is not looking quite so well. All the other parts of the works are much the same as before.

TREGONTRES AND OLD POLGOOTH CONSOLS.—Thos. Parkyn, Nov. 6 North Level: There is no change to notice in the tribute department since my last report, except to say that this month the yield of tin is better, in consequence of the stuff sent up to the stamps being chiefly from the lode in south. In this month it was absolutely necessary to send up large quantities of attle, or what is called refuse, left by the ancients. This was to make room to open up the stopes, and the attle, as a rule, never yields results such as one could wish. This month the men, as before stated, are working on the lode to the south, which is yielding superior results, and now that you have the stope opened an increase of tin will be sent into the markets. The cross-cut driving south at this level is, I am happy to inform you, now near the flat lode, as we meet with branches of tin, which indicates that the lode is near at hand. I beg here to say that no notice of this flat lode was taken in the working of this mine in the rich days, even though the fine taking its fortune was over \$50,000 worth of the other lodges, and this flat lode, which was totally neglected, is intact throughout the mine, and when cut into and fairly opened will discover a new era in the history of this mine. I would beg to state that flat lodes in the west of Cornwall have been the means of enriching the mines to the amount of hundreds of thousands of pounds, and within this last few weeks the flat lode cut in West France has enhanced the value of the mine several hundred per cent., and I could mention many other mines which have had similar results. As the flat lode in this mine, however, is not yet sufficiently exposed to allow all the tin in it to see there can be no reason whatever to doubt that the same results will be found here. In fact, my opinion is that it will surely be found so, and I am looking forward with very great interest to the cutting of this important flat lode, of which you shall be advised the moment we reach and cut into it, &c.—Molvra: I am pleased to inform you that the ground for the clatern plat is cut and the bearers fixed in their position, and hope this week to fix the clatern and commence to sink immediately beneath the surface of the hillside. The two lower levels were also repaired and assays made. The lodestuff taken from here has been carted over to the stamps and stamped by the Sholl's patent stamps, which I have carefully watched.

TRESPAYEAN.—J. Frisk, W. Edwards, Nov. 3: The bearers and clatern at the 126 are fixed, and the shaftmen are engaged in sending down the plunger bottom, which will be fixed in a day or two, then we shall commence to send down the 50 fathom-column, and no time shall be lost in getting the 15 in. plunger to go down to the 100 fathoms. Since the first sinking lately, we have used steam pumps on the mine to reach the 166, where we expect to find some good tin ground. Cunnaick's Shaft: The lode in the tribute pit in the bottom of the 12 is worth 20*t*, per fathom; but we are sorry to report the men are down to water, which has hindered them from working, and as the wet season is now coming on we fear we shall not be able to resume operations here for some considerable time unless the 24 is brought up under it, which we consider well worthy of doing, as a considerable quantity of paying tin ground would be opened up thereby, and the more the lode sinks the more the tin rises. We are burning and dressing our next parcel of tin, which will be sold at the usual time. The 30 in. engine and all other machinery continue to work well.

WEST CARADON.—N. Richards, Nov. 5: Gilpin's lode, at the 28, is disordered by a cross-head, and is not at present producing so much ore, but the other side of the cross-head the lode is 2 ft. wide, with every appearance of an early improvement. The stope in the back of the adit level, on this lode, are yielding together 3 tons of copper ore per fathom. A stope in the bottom of this level is unproductive.

WEST CREBOR.—John Andrews, Nov. 5: The lode in the 95 west is 4 ft. wide, composed of quartz, capel, mundic, and yields a little saving work for copper ore. The lode in the 80 west is opening out wider, and is now fully 3 ft. wide, composed principally of capel, with a little copper ore and mundie intermixed, but nothing to value.

WEST GODOLPHIN.—T. Rodge, Francis Dodge, Nov. 4: In the 92, north-east corner of the mine, the reports have driven through 3 ft. of granite, and now into killas again; the lode is letting out much water, and yielding occasional stones of tin. In the 92 south-east we have cut into the cross-course, which is somewhat larger than in the level above, and letting out a quantity of water; it will take us a week to be into the lode (settled the other side) to reach the run of tin ground.—Pink Lodge: The stope in the back of the No 8 is now up to the level of the 70, so this stope from this time will be called "stope in the back of the 70," the lode in which is worth 10*t*, per fathom. The 70 east is commencing to show signs of rising, and giving good ventilation. The men in a few days will continue this level until the end of the year. In the level worth 7*t*, per fathom. The other bargains are much the same as last reported.

WEST KITTY.—Wm. Vivian, Nov. 6: In the 84, driving east of cross-cut, the lode continues to improve, now worth 12*t*, per fathom. In the 72, driving east, the lode is worth 15*t*, per fathom. In the 60, driving east of rise, the lode is worth 14*t*, per fathom. In the 60, driving east of cross-cut, the lode is worth 18*t*, per fathom. In the 50, driving east of No. 1 rise, the lode is worth 12*t*, per fathom. In the 50, driving east of No. 2 rise, the lode is worth 10*t*, per fathom. In the 3 rise in back of the 60 the lode is worth 5*t*, per fathom. We have four stops at work, varying from 15*t* to 50*t*, per fathom.

WEST POLBREEN.—W. Vivian, Nov. 6: I am glad to say that we are making good progress in sinking the engine-shaft, and we hope when the shaft is communicated with the adit level to be in a position to report considerable improvement in the prospects of this mine.

WEST WHEAL PEYOR.—W. T. White, Nov. 6: The lode in the 60 east-west is increased in width, showing signs of improving, and is now between 3 and 4 ft. wide. It is also showing signs of improvement, and thus far this looks kindly as we near the run of tin ground lately met with in the 43 fm. level above. The lode in the 43 east-west still produces some good work for tin. We purpose sinking a winze in bottom of this level soon, to open up this run of tin ground between this and the 60 fm. level. We are also preparing for drawing to surface the tintuff we have broken from the 43 east. We have cut a lode in the 36 cross-cut south about 2½ ft. wide, slightly underlying north. We shall be able to say more about this in the next report. We have no other change to record.

WHEAL CREBOR.—H. Phillips, Nov. 4: We are making fair progress in driving the 156, west of new shaft, to reach the ore ground going down in the bottom of the 144 west. The lode in the 144 driving east of new shaft contains a little mundie spotted with copper ore. The lode in the winze sinking below the 144 on the south part, will yield 4 tons of copper ore per fathom. This north part will yield 3 tons of copper ore and 2 tons of mundaic per fathom. The lode at this point did not appear improved, appearing, yielding 2 tons of copper ore and 1 ton of mundaic per fathom. No. 1 stope in back of the level will yield 7 tons of copper ore and 2 tons of mundaic per fathom. No. 2 will yield 10 tons of copper ore and 4 tons of mundaic per fathom. The stope in the bottom of the 132, east of winze, will yield 5 tons of copper ore and 2 tons of mundaic per fm. The lode, west of said winze, will yield 9 tons of copper ore per fathom. The lode in the winze sinking below the 43, east of new shaft, will yield 2 tons of copper ore and 2 tons of mundaic per fathom. All other points are without change.

WHEAL GRENVILLE.—T. Hodge, Nov. 5: The 205 east end is letting out much water, and looking more promising for tin. The 190 east end is improved, worth 13*t*, per fathom. The 178 east end produces low price tinstone. The 165 east end and the 150 east ends are poor. The 140 west end is worth 3*t*, per fm. The 130 west end is worth 14*t*, per fathom. No other change.

WHEAL LUSKY.—W. Skewis, Nov. 5: We have got through the No. 1 lode in the eastern cross-out. It is there a little over 4 ft. wide, a very compact, regular lode, composed of quartz, iron, and some grey and yellow copper ore. The cross-cut is now being extended to intersect the No. 2 lode.

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COPPER.—Messrs. JAMES LEWIS AND SONS, Nov. 1, write:—"Notwithstanding the further greatly improved statistical position of this metal the value of the bill bars and grades advanced during the past month from 25*s* 10d to 18*d* 10d, and yesterday dropped to 18*d* 5d per cwt. The lowest rate recorded previously was 53*s*, at which cash bars were sold in August, 1879, when the stock of copper here and in France was 40 percent greater than at present, and the rebound from which in the following six months was 13*i*, per ton. On Oct. 29 the English smelters reduced the price of India sheets 2*d* to 65*d*, per ton. The only causes to which the present depreciation can be ascribed are the fear of large American importations; the prospect held out in the East Minor Company's proposed increased supplies of copper from the United States Mines; the competition of diminished stocks of the precious metals and sulphur in the ore; the advance in the Bank rate from 2 per cent. to 4 per cent.; the general dulness of trade, and the entire absence of all desire to invest in copper on the part of speculators. There was an increased production and exportation into England and France up to Sept. 30 as compared with the same period last year, of 2944 tons fine, and an increased consumption in England and France and export of 14,430 tons. Stocks have consequently decreased this year 8150 tons during the nine months, while last year they increased 3368 tons. Whereas the consumption in England shows an increase of 981 tons, that of France shows a decrease of 3879 tons, and the exports from England (exclusive of those to France) show an increase of 7328 tons, of which 3344 tons went to India, and 3984 to other countries; 1477 tons less copper have this year been imported in the form of pyrites, and the present stock in this country appears to be reduced to a corresponding extent, which should be added to the home consumption as given above. It is apparent that with the greatly reduced stocks of copper in England and France any important diminution in the supplies from the Spanish sources would seriously affect the market." But according to the mining companies who have recently announced their intention of increasing their production to counterbalance the effects of lower prices were to adopt a different policy, and diminish rather than increase, their output of copper. It appears to us that it would be greatly to the benefit of the shareholders. Any advantage derived from the larger quantity of copper sold will be more than neutralized by the lower prices obtained for it. The leading Lake Superior mining company, which produces about one-half the total output of the district, has already decided against dividing the profits to the tune of \$91 tons, that of the Mexican Government Company, which produced 10,000 tons, has also decided its interim dividend from 12*s* to 10*s*, per share. The deliveries in England and France in October have been on the same large scale as during the previous nine months—9285 tons. The arrivals from the United States have been 11333 tons less than in September. Regular shipments of American ingot copper are now being made, the quality of some brands of which is fully equal to English best selected. The arrivals from Chili during the past month have been 2537, and the deliveries 2537 tons, and from other countries 3985 tons and 4155 respectively. The Chilean exports alone exceed the French ones. The average monthly demand from the United States consist of 812 tons bars, 136 ingots, 657 marks, and 2155 marks of refined copper.

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The Mining Market: Prices of Metals, Ores, &c.

METAL MARKET—LONDON, NOV. 7, 1884.

IRON.	£ s. d.	£ s. d.	TIN.	£ s. d.	£ s. d.
Pig, 6000, f.o.b., Clyde...	2 3 1	—	English, ingot, f.o.b....	77 10 0	—
Scotch, all No. 1...	2 3 9	—	bars...	78 10 0	—
Sars Welsh, f.o.b. Wales...	4 17 6	—	refined...	79 10 0	—
" in London...	5 7 6	—	Australian...	75 0 0	75 2 8
" Stafford...	6 7 6	—	Banca...	nom.	—
" in Tyne or Tees...	5 0 0	—	Straits...	74 17 6	—
" Swedish, London...	8 15 0	9 15 0	COPPER.		
Rails, Welsh, at works...	4 17 6	—	Tough cake and ingot...	58 0 0	58 0 0
Swedish, at works...	7 5 0	7 10 0	Best selected...	58 0 0	59 0 0
Pates, ship, in London...	7 10 0	8 0 0	Sheets and sheathing...	58 0 0	65 0 0
Horns, Staff...	6 7 6	—	Flat bottoms...	65 0 0	68 0 0
Nail rods, Staff, in Lon...	6 5 0	—	Wallaroo...	nom.	—
STEEL.			Burra, or F.C.O....	60 0 0	—
English spring...	12 0 0	13 0 0	Other brands...	58 10 0	60 0 0
cast...	10 0 0	11 0 0	Chilli bars, g.o.b....	52 12 6	—
Swedish, keg...	13 0 0	14 0 0	QUICKSILVER.		
" flag, ham...	13 10 0	14 10 0	Flasks, 75 lbs. war...	5 12 0	—
Rails at works...	17 6 0	—	PHOSPHOR BRONZE.		
" Light, at works...	17 6 0	—	Alloys I. and II....	£105 0 0	—
LEAD.			" V. and VII....	112 0 0	—
English pig, common...	10 17 6	11 0 0	" XI. and XII....	102 0 0	—
" L.B....	11 0 0	11 2 6	" Duro A, Duro B...	98 0 0	—
" W.B....	11 2 6	11 5 0	BRASS.		
sheet and bar...	11 12 6	11 15 0	Wire...	6 1/4 d.	—
pipe...	12 5 0	—	Tubes...	8 1/2	—
rel...	14 10 0	10 10 0	Sheets...	6 1/4 d.	—
patent shot...	14 0 0	—	Yel. met. sheath. & she...	5 1/2 d.	—
Spanish...	10 11 3	—	TIN-PLATES.		
NICKEL.			Charcoal, 1st quality...	1 10 0	2 0 0
Metal per cwt....	—	—	" 2nd quality...	1 8 0	1 0 0
Ore 10 percent. per ton...	—	—	Coke, 1st quality...	0 16 0	0 16 6
SPALTER.			" 2nd quality...	0 15 0	0 16 0
Silesian ordinary brands...	5 0 14	7 6	Black...	per ton	15 0 0
special brands...	14 12 6	—	Canada, Staff, or Gla...	12 0 0	—
English Swansons...	15 5 0	—	at Liverpool...	—	—
Sheet zinc...	17 10 0	17 15 0			

* At the works, 1s. to 1s. 6d. per box less for ordinary; 10s. per ton less for
 Canada; 1X 6s. per box more than 10 quoted above, and add 8s. for each X.
 Terne-plates 2s. per box below tin-plates of similar brands.

REMARKS.—The Metal Market has been a little disturbed during
 the past week on account of the American elections, but on the
 whole there is an improvement in prices. For a long time past one
 of the principal reasons of the depression in the metal trade has
 arisen from the great quietude of business in iron, that bearing its
 unfavourable influence, not only over other metals, but also over all other
 branches of commerce. It is not surprising, therefore, upon the prospect of
 the election turning in favour of Mr. Cleveland, a strong advocate of Free
 Trade, that prices of pig-iron here should have advanced. There is another
 reason for the rise in the price of Scotch pig—that of some heavy "bear"
 accounts reported to be still open, and which have to be covered in; but this is a
 feature of only slight significance compared with the other, if the American
 duties should be taken off iron. The iron trade has for a long time suffered
 chiefly from the entire absence of any American demand. We do not say that
 there is any prospect of that demand improving just yet, but certain it is that
 in the event of America again coming to this country, purchasing our iron with
 its enormous power of consumption, our existing stocks, reduced as they are,
 would again be put into blast, the doors of the various closed works would be
 reopened, and once more would the iron trade of this country be placed in a
 flourishing condition to extend its favourable and beneficial influence over
 other metals and the various different branches of commerce.

But this is a picture too bright and cheerful in the present gloomy state of
 trade; we merely bring it forward to show how a complete change, a sudden
 revolution in fact, might be speedily effected if only the American demand for
 iron could be restored and cultivated. But now the trade takes a gloomy view
 of the situation. If stocks are reduced the power of supply has enormously
 increased, and it is not thought necessary to keep up such heavy stocks as in
 years gone by, the means of transit from centres of supply now being so much
 more speedy, certain, and efficient compared with what it was in times gone by.
 Further, it is not merely in this country that trade is so miserably depressed,
 throughout the whole world stagnation, depression, inactivity, quietude, want
 of animation, &c., are the reports which come to hand. From India, China,
 America, the Cape, Australia, in fact from all parts of the eastern and western
 hemisphere, the same gloomy complaint penetrates itself as it were with one
 voice to this country that trade is decidedly bad. And how is this to be
 accounted for? Not because there is less doing, we proved the reverse of that,
 so far as metals are concerned, only last week, but it is because what has been
 done has proved unprofitable.

True, the business is not equally divided over the whole trade; there are
 many of the works who close their doors rather than accept current prices.
 They say they cannot afford to go on producing and manufacturing at present
 rates, and very wisely they determine to do nothing rather than work at a loss.
 This, too, has the effect of throwing out of employment those whom such
 works were accustomed to employ, and consequently from them constant re-
 ports come to hand of a complete standstill in business. In addition to this, it
 is not only manufacturers and those whom they employ who are suffering from
 a want of business, but many merchants, shippers, and others likewise refuse to
 enter into engagements which can only be done in the keen and extremely
 close manner in which business is usually done at the present time. The busi-
 ness that is carried through, large and increasing as it is, flows into other
 hands; but it is of a very unremunerative character, and losses are frequently
 incurred. We do not say from this cause that prices are likely soon to advance.
 The times appear to be too critical for that, but it shows that when a revival does
 occur, whether it be deferred or not, then sellers are most unlikely to continue
 selling at the present very unprofitable quotations.

COPPER.—Notwithstanding the issue of somewhat unfavourable
 statistics, and the announcement on Saturday last of heavy charters
 from Chili for the last half of October, this market has, for the greater
 part of the week, displayed a hardening tendency, probably on
 account of the unprecedented low prices inducing a few operators
 into the market, and many of those who have recently been selling to cover in
 their prompts. The price of Chili bars gradually strengthened to the extent of
 about 5s. per ton, the market being at about its best early yesterday morning,
 after which it eased off slightly, but again became a little firmer, and to-day it
 is weaker for forward prompts. The Chili charters for the last half of October
 were 2400 tons, and the total stock on Oct. 31 here was 41,760 tons, against
 40,223 tons on Sept. 30, and 46,833 tons on Oct. 31, 1883. According to advices
 from Valparaiso the price there is only 51s. 7s. 6d. cost and freight to Liverpool.
 The total supplies last month were very heavy, amounting to 10,205 tons, and
 to this cause must be attributed the increase in stocks, the deliveries having also

been good, and amounted to 9268 tons—a very satisfactory quantity considering
 the unprecedentedly large deliveries of the previous month.

The stock of Chili bars in first and second hands in Liverpool and Swansea
 at the end of last month was 22,592 tons, or about 2000 tons less than what it was
 at the end of October last year, whilst the price is now about 5s. 10s. lower.
 Some of the smelters are said to be fairly off for orders, both for consumption
 and shipment, but the unfavourable Indian exchange has placed a severe check
 to business in Indian sheets, both copper and yellow metal, for the time being.
 At the same time there are old orders in hand, so manufacturers do not derive
 much inconvenience from the present inactivity in the Indian demand; never-
 theless, it causes them to be somewhat easy in their quotations.

IRON.—This market is quiet, and no new feature of any particular
 importance has to be recorded. A more hopeful tone pervades the
 shipbuilding trade, and in some of the iron mining districts there is a
 fair amount of briskness, but in the manufacturing centres of
 the trade there is still a great deal of quietude and depression, short
 time being very prevalent. The statistics giving the public stocks at the close
 of last month are, on the whole, favourable, and show a decrease in Connal's
 stores in Glasgow for the month of 3165 tons, and in the same firm's yards in
 Middlesbrough of 1230 tons. In Glasgow there are warrants in circulation for
 523,265 tons, and in Middlesbrough for 51,740 tons. The Cleveland ironmasters'
 returns for October were issued last Tuesday, and they show that the total
 production in that month was 201,000 tons, or an increase compared with September
 of 4900 tons. Of this quantity 49,000 tons consisted of hematites and other
 kinds of iron than Cleveland. The shipments last month were small, compared
 with the same month of last year, being 88,000 tons, against 99,000 tons, or a
 decrease of 11,000 tons. The total stock of Cleveland iron is 238,000 tons, being
 a reduction of 174 tons.

The number of furnaces in blast is 98, and there are 58 standing idle. These
 returns do not call for any special comment. There is such a slight alteration
 in the stocks in Middlesbrough that statistically the trade there may be said
 to be much about the same as a month ago, but there is a very sensible reduc-
 tion in the public stock in Scotland. The light shipments is the most striking
 feature of an adverse nature, they are limited not only in Scotland, but also in
 Middlesbrough, and so much so that they give cause for some little anxiety.
 The better tone which characterised the Glasgow warrant market last week was
 not sustained at the early part of this week, and operators have been taking
 their profits. Fresh buyers did not come forward, prices crumbled away until
 Wednesday, when a sharp rebound ensued, prices recovering more than they
 had lost in the previous two days. A moderate business only has been trans-
 acted in makers' iron, and for some brands quotations are as shade stronger.
 The Glasgow warrant market, having closed very strong last week, opened on
 Monday with less disposition to continue purchasing, and there was a reaction
 in prices, transactions being carried through between 42s. 3/4d. and 42s. 6/4d.,
 and on Tuesday the market was flat during the forenoon, prices continuing to
 recede to 42s. 5/4d., and 42s. 4/4d., but later on in the day it improved to 42s. 6d.

On Wednesday again the market became excited, and the price was fluctuat-
 ing, business being done at 42s. 2/4d. to 42s. 6d., the quotation at the close being
 42s. 8d. Yesterday the market was slightly easier, for after opening at 42s. 3d.
 it fell away to 42s. 1 1/2d., recovering again to 42s. 1d., and the closing figure
 this afternoon is 42s. 3d. The shipments last week were 8947 tons, against
 12,167 tons for the same week of last year, being a decrease of 3218 tons, and
 which makes the total shipments for the whole of this year 472,492 tons, against
 553,789 tons for the same time of last year, and 547,809 tons for the similar
 period of 1882. There are still 55 furnaces in blast, and the public stock has
 been further reduced by 315 tons, and now amounts to 580,423 tons, against
 580,747 tons last week. The imports of Middlesbrough pig-iron into Gran-
 geon last week were 5940 tons, against 5410 tons for the corresponding week
 of last year, being an increase of 530 tons, and which makes a total decrease for
 the whole of this year compared with last of 8398 tons. The Middlesbrough
 market is reported tolerably firm, but the demand is limited, as is usual at this
 season of the year. The present price for No. 3 is 36s. 3d., and for No. 4, 36s. 3/4d.,
 whilst forward sales of No. 3 realised about 3d. extra upon the cash price, which is
 taken as an encouraging sign of the future trade. Warrants are offering at
 35s. 9d., and there is a decrease in the public stock of 85 tons.

The shipments last week were about 20,000 tons, and in manufactured
 there is little change, prices being fairly steady. Common bars are quoted
 at 5s. 2s. 6d.; angles at 4s. 15s.; ship-plates at 5s.; sheets at 6s. 15s.;
 and puddled bars at 5s. 6s. per ton. According to advices from Wolverhampton
 a few fair orders have lately been received for galvanised iron from
 India and Australia, the price for 24 gauge being 12s. to 12s. 10s. delivered
 Liverpool. Ordinary sheets are quiet, at 7s. for singles to 7s. 10s. for doubles.
 Tank-plates can be bought at 7s., and other plates at 7s. to 7s. 10s., whilst boiler-
 plates are quoted at 8s. 10s. to 9s. per ton, and pigs are quiet, without change in price.
 The report from Birmingham shows that the wages dispute question has been
 deferred for settlement until after Christmas, and business in that district is
 slightly brisker, whilst the prospects are thought to be more encouraging. There
 is a fair demand for sheets, and a steady enquiry for common bars, the latter
 offering at 5s. 15s. to 6s. Pigs have been selling freely, cinder pigs especially
 being in active demand by steel manufacturers.

TIN.—For the greater part of the past week this market has been
 steady, and while the turnover has been fairly large, prices, on the
 whole, have strengthened. Yesterday they were particularly strong,
 notwithstanding the advance in the Bank Rate. There are certain
 features in the market that indicate that prices are not likely to be
 sustained, but there are others of such a favourable nature that evidence a re-
 storation of prices to a more remunerative level. The principal unfavourable
 feature in the market is the increase in the total visible stock during October,
 being 13,918 tons on Oct. 31, against 13,527 tons on Sept. 30 last. This increase,
 however, is due entirely to an increase in the stocks in America, those here
 have been considerably reduced, and the total deliveries last month were very
 large, amounting to not less than 2495 tons in London and Holland. Taking the
 comparisons of the stocks with October, 1883 and 1882, there is a reduction in
 round figures of 1700 tons with both these dates, whilst the price is about 26s.
 lower than what it was last year and 26s. less than in October, 1882, whilst the
 deliveries last month were about 450 tons in excess of what they were either in
 October, 1883 or 1882.

Just now, the quotations for forward prompt are low; they, in fact, are at
 times under the prices for cash parcels, which indicates that operators have not
 much confidence in the continued stability of prices in face of the present cri-
 tical state of general trade. At the same time, there may be a smart advance
 before very long, even if it be not permanently sustained, simply because the
 stocks here are light, and nothing like adequate to the turnover, and in face of
 the heavy deliveries may be further reduced before fresh arrivals come to hand.
 The shipments last month from Straits to London were 1500 tons; from Aus-
 tralia to London, 1200 tons; from London and Holland to America, 1125 tons; and
 from Straits to America, 500 tons. A public sale is announced to take place at
 Amsterdam on Nov. 27, when 22,500 slabs of Banca and 300 slabs of Billiton will
 be offered for disposal.

SPALTER.—The market has been quiet, and we quote ordinaries
 at 14s. 5s. to 14s. 7s. 6d., and special brands at 14s. 12s. 6d. per ton.
LEAD is still depressed at 10s. 10s. for Spanish, with sellers over,
 and we quote English pigs at 10s. 17s. 6d. to 11s. per ton.

STEEL.—There is still a fair amount of activity in this metal, busi-
 ness during the last few weeks having decidedly improved.

TIN-PLATES.—The demand is quiet, and prices somewhat easier
 for cokes, both primes and wasters; but there is not much change
 in quotations for charcoals.

QUICKSILVER.—The Board of Trade Returns for October are
 as follows:—
 Imports—October Bottles 1882. 1883. 1884.
 950 218 1340
 Ten months 41,728 53,680 57,768
 Exports—October 42,371 42,371 42,371
 Ten months 31,750 32,763 42,548

The exports are again disappointing, and at this ratio the increased
 exports will hardly equal the increased supplies. The importers'
 price remains 5s. 12s., but second-hand parcels have again been
 freely sold, with business reported down to 5s. 8s.

THE MINING SHARE MARKET has been particularly quiet this
 week, and there has been a general absence of business without any
 material alteration in quotations, which are nearly all nominal.
 The mines dealt in to a small extent have been Dolcoath, Agar, West
 Franches, Prince of Wales, Wheal Crebor, East Blue Hills, Van, West
 Kitty, and a few others.

TIN has been rather firmer, but no change made in the standards
 for ore since Oct. 25. In shares very little has been done. Cook's
 Kitchens are now quoted 9 to 10; Carn Brea, 3 to 3 1/2; Dolcoath,
 6s to 6s. East Pool, 3s to 3 1/2; at the meeting in Cornwall, on Mon-
 day, a dividend of 18s. per share (5760s.) was declared. The ac-
 counts showed a profit on three months' working of 6000s. The tin
 sold, 361 tons, realised 15,681s.; the average price being 43s. per
 ton, and at this price it showed a profit of about 14s. per ton. The
 reserve fund carried forward amounts to 1117s. The engine-shaft is
 down 1 1/4 fathoms below the 212 ft. level, and a cross-cut will soon
 be commenced to intersect the great lode. The 212 is worth 35s.
 per fathom. East Blue Hills, 4s. to 6s.; there is a fine lode now in
 shaft. New Kitty 1 to 1 1/2; South Conderrow, 8 to 8 1/2; Tincroft, 6 1/2
 to 7; Trevaunant, 1 1/2 to 1 1/2; Trevaunant, 1 1/2 to 2.

West Basset, 1 1/2 to 1 1/2; Wheal Basset, 1 1/2 to 1 1/2; West Franches, 5 to
 5 1/2; West Gollop, 1 1/2 to 1 1/2. West Kittys have further declined to
 8s. 8s. Wheal Agar, 16s to 16s; Wheal Grenville, 5s to 6s; Wheal
 Kitty (St. Agnes), 1 1/2 to 1 1/2; Wheal Uny, 1 1/2 to 1 1/2. South Franches, 6 to
 6 1/2; at the meeting a call of 5s. per share was made. The accounts
 showed a loss on four months' working of 2382s. The tin sold
 (124 tons) brought 6482s., or an average of 44s. 4s. per ton. The
 total working expenses of the four months amounted to 8067s. The
 shaft is down 6 fms. below the 236, and the lode is worth 36s. per fm.;
 and with good prospects in the bottom of the mine they only want
 a better price for tin to make a better appearance in the future. At
 Phoenix United meeting the sales of tin realised 7488s., and showed
 a loss of 414s. on the four months, the cost being 8304s. The average
 price of the tin sold here was 44s. per ton, or 1s. higher than East
 Pool. Mounts Bay, 1 1/2 to 1 1/2; Polberro, 2 to 2 1/2; South Crofty, 2 1/2
 to 3 1/2; West Polbreen 1 1/2 to 1 1/2.

COPPER has been firmer, but there is very little doing in shares.
 Bedford United, 1 1/2 to 1 1/2; Devon Great Consols, 2 to 2 1/2; Marke
 Valley, 1 1/2 to 1 1/2; Devon Friendship, 1 1/2 to 1 1/2; Mellanear, 1 1/2 to 1 1/2;
 New West Caradon, 1 1/2 to 1 1/2; Prince of Wales, 1 1/2 to 1 1/2; West
 Caradon, 1 1/2 to 1 1/2; West Seton, 2s to 3s. West Crebor, 1-16th
 to 1-16th; the bottom level here is looking better. Wheal Crebor, 1 to 1 1/2;
 the lode in the 144 west has now improved to 2 tons of copper ore
 per fathom, and the 156 driving to get under its richest part. The
 points in operation are valued at 42 tons of copper and 15 tons of
 mundic per fathom. Gunnislake (Clitters), 1 1/2 to 1 1/2; at the meeting
 the accounts showed a loss of 612s. on four months' working, and a
 debit balance of 213s. No call was made, as the prospects of the
 mine have improved. South Caradon, 1 1/2 to 1 1/2.

LEAD Mines are quiet, and very little dealt in. Vans are quoted
 1 1/2 to 1 1/2; operations at the mine have been resumed. Roman Gravel,
 3 1/2 to 3 1/2; Great Laxey, 8 1/2 to 9 1/2; Leadhills, 1 1/2 to 1 1/2; Standard
 Lead, 1 1/2 to 1 1/2; Weardale, 1 1/2 to 1 1/2; Old Shepherds, 1 1/2 to 1 1/2; East
 Rose, 7-16ths to 1 1/2.

FOREIGN MINES.—Shares of this class have formed rather an ex-
 ception to the general dullness, and to-day the feeling was decidedly
 better. Akankoo are quoted 3-16ths to 5-16ths; Alamillos, 1 1/2 to
 1 1/2; Almada and Trito, 1 1/2 to 1 1/2; Asia Minor, 1 1/2 to 1 1/2; Balkia,
 1 1/2 to 1 1/2; Birdseye, 1 1/2 to 1 1/2; Bratsberg, 1 to 1 1/2; Callao Bis, 9-16ths
 to 1 1/2; Cape Copper, 4 1/2 to 4 1/2; Chilli Gold, 1-16th to 1 1/2; Chontales,
 1-16th to 3-16ths; Colombian Hydraulic, 7-16ths to 9-16ths; Colorado
 United, 1 1/2 to 2 1/2; Copiapo, 2 1/2 to 2 1/2; Eberhardt, 3-16ths to 5-16ths;
 Fortuna, 2 1/2 to 3 1/2; Frontino and Bolivia, 1 1/2 to 1 1/2; General Mining,
 5 1/2 to 6; Kapanga, 2s to 3s. La Plata, 3-16ths to 5-16ths; the re-
 turns for October show—Ore received from the company's mine,
 1000 tons; total ore received, 6500 tons; ore smelted, 5300 tons;
 bullion produced, 525 tons; silver produced, 120,000 ozs.

Linares, 2 1/2 to 3 1/2; Mason and Barry, 8 to 8 1/2; Mysore Gold, 1 1/2 to
 1 1/2; New Callao, 3-16ths to 1 1/2; New Emma, 1 1/2 to 1 1/2; New Potosi, 1 1/2 to
 1 1/2; Organos, 1 1/2 to 1 1/2; Orita, 1 to 1 1/2; Oscar, 1 1/2 to 1 1/2; Panulillo, 3 1/2 to
 3 1/2; Quebrada Railway, 3 1/2 to 4; Richmond, 3 1/2 to 4 1/2; Rio Tinto, 1 1/2 to
 1 1/2 x.d.; ditto Mortgage Bonds, 98 to 100; ditto Second Mor-
 tgage, 89 to 91; Ruby and Dunderberg, 1 1/2 to 1 1/2; Santa Barbara, 1 1/2 to
 1 1/2; Schwabs Gully, 6 to 6 1/2; St. John del Rey, 6s to 7s; Tharsis, 5 1/2 to
 6; Tolima, 6 to 6 1/2; United Mexican, 3 to 3 1/2; Victoria (Vene-
 zuela) Gold, 1 1/2 to 1 1/2; West Callao, 3s. to 4s.; Western Andes, 4 1/2 to 5.

The Market for Mine Shares on the Stock Exchange has, consider-
 ing the numerous disturbing influences—American Presidential
 election, cholera at Paris, advance in the Bank Rate, and so on—
 exhibited a decided improvement as compared with last week, and
 to-day a fair amount of business has been done. The metal mar-
 ket has been in a more encouraging condition throughout the week, and
 although quotations may be fractionally lower, there is more stability
 in the market, and it would be difficult to effect actual purchases at
 last week's prices. Judging from this fact there are many who enter-
 tain the confident hope that we are on the eve of a permanent
 improvement. The Franco-Chinese War has no doubt interfered
 with the sale of East Indian Dutch tin for the China market, but
 as the supply has not been obtained elsewhere the withdrawal of
 demand from that quarter cannot but be temporary only.

Lord Dunraven's motion in the House of Lords on Thursday even-
 ing has at least brought forward some indisputable facts. He showed
 that in all the leading industries of the country there was very great
 depression, though the income tax returns showed that there was no
 decrease in the aggregate prosperity of the country. He alluded
 particularly to the depression in the iron trade, and mentioned as
 another indication of the badness of the times the circumstance that
 many private firms were turning their establishments into limited
 companies—the inference being that unless a business is wanting
 those interested will not turn it into a limited company. He argued,
 moreover, that compensation duties might be imposed without en-
 croaching a hair's breadth on the principle of free trade, and he
 stated his opinion that it was only by the imposition of such duties
 we could prevent foreign countries from putting our manufacturers
 at an unfair disadvantage. He was a free trader, but he denied
 that England had got free trade. The fallacy of such an argument
 was at once exposed by Earl Granville, who characterised the en-
 quiry as one without an object, reminding the House that five years
 ago, when a similar enquiry was asked for, Lord Beaconsfield showed
 that so few were our duties on foreign articles that we were not in
 a position to bargain with the Governments of other countries; and
 he thought that if Lord Beaconsfield were now alive he would hear
 with astonishment the proposal to impose duties on manufactured
 articles coming in from other countries. He admitted that there
 was great suffering on the part of the industries of this country, but
 he denied that in those industries there was either ruin or despair.
 He denied Lord Dunraven's assertion that the industrial depression
 was greater in this than in other countries, and he referred to the
 state of things in France and the United States to bear out his
 denial.

But probably the real cause of the depression was most nearly
 suggested by the Earl of Harrowby, who said that he believed that
 the great cause of the industrial depression was the action of the
 Majesty's Government, which had caused uncertainty and instability
 at home, and a feeling of insecurity abroad. This is really the busi-
 ness man's view, as a rule he cares little whether Liberals or Con-
 servatives, Tories or Radicals, are in power; and Lord Salisbury, Mr.
 Chamberlain, or Mr. Parnell would be equally acceptable to him as
 head of the Government provided only the public could be given
 confidence that commercial and industrial affairs would be permitted
 to pursue their ordinary course undisturbed by political agitation
 connected with either home or foreign matters; and nine out of ten
 will agree with Lord Kimberley that there is not the remotest chance
 of the people of this country consenting to the imposition of a duty
 on foreign corn. Lord Dunraven's remedy of a duty on foreign
 manufactured articles would not only do nothing for the relief of
 agricultural depression, but would compel the farmers to pay more
 for protected articles. The motion was withdrawn, and as political
 affairs generally

can be no possible objection, so that the remarks in last week's Journal could not have applied to this class of business at all.

As to the unqualified condemnation of "time on" bargains as damaging to Cornish mining the West Briton says:—We have by no means a partiality for "time on" dealings, but we wish our readers distinctly to bear in mind that share dealing is not Cornish mining, and Cornish mining is not jobbing in shares. They are two distinct things, and we fail to see how jobbing can injure mining. We have repeatedly stated in these columns that unless a speculator is prepared to meet a possible loss, and willing to take the chance of losing for the chance of winning, he has no right to meddle with shares. If a dealer, having the command of money, chooses to buy for cash and sell for forward delivery at what he considers a fair margin he has a perfect right to do so; and if the buyer make a loss on his bargain he has no right to complain. When he bought he believed he would profit, otherwise the purchase would not have been made. Or if a dealer believes a share to be too high, and chooses to sell for a month or two on, on the chance of buying back cheaper before the settling day, we fail to see that there is anything wrong in his doing so. If his calculation be wrong he loses, and has to pay the difference. But we notice that losers who rush recklessly into the market, who unthinkingly pay fancy prices, ignoring common business prudence, are the first to rail against Cornish mining and the iniquities of forward dealings, whilst, when they win, as sometimes happens, they bore their acquaintances by perpetually boasting of their exceeding great sagacity and foresight.

The Drobie Mines Company, with a capital of 100,000*l.*, in 25,000 shares, has been incorporated, to purchase for 50,000*l.* the valuable mining property known as the Concession des Mines de Sablières, situated in the department of Ardèche, which forms part of the richest mining province in France. The concession covers about 2000 English acres, and is said to contain a large number of well-mineralised lodes, several of which have already been worked upon, and give most encouraging evidence of a practically unlimited field of operations for profitable mining. From the reports of experts who have visited the mines, they produce copper and argentiferous galena, with a little blende and pyrites. It is anticipated that the annual returns will be about 25,000*l.*, equal to 20 per cent. on the nominal capital.

The Land and Pastoral Company of South Australia with a capital of 500,000*l.*, in 10*l.* shares, has been formed to purchase for 300,000*l.* land, stock, and plant, and to engage in sheep and cattle farming in Australia. The land consists of about 44,500 acres freehold, within a day's journey of Adelaide, and within 15 miles of Port Germain, and about 8700 square miles held under lease, mostly within two days' journey of Adelaide, and 24 hours of Port Augusta. The live stock on these properties is not less than 100,000 sheep, 10,000 cattle, and 100 horses, and much money has been expended upon the land in sinking wells and erecting buildings. Dividends at the rate of 8 to 10 per cent. are expected.

Devon Great Consols, 2*½* to 2*¾*; the monthly sampling of copper ore is 869 tons. The mines continue about the same in the various points of operation.

Devon Great United, 2*½* to 2*¾*; the 120 west continues to produce 2 tons per fathom. The sampling of copper ore is 77 tons of good quality.

Drakewalls, 2*½* to 2*¾*; it was stated last week the engine-shaft would be commenced sinking to the bottom level 102 fms. deep. This has now been done, and it is satisfactory to find that the lode is producing about 2 tons of tin per fathom, and likely from appearance to further improve. This is regarded as a most important point of operation, and sinking this shaft will, therefore, be pushed down with all possible dispatch in order to open out and return increased quantities of tin from below the bottom level.

Ecton, 1*½* to 2*½*; there has been an active business reported in these shares throughout the week, and though some sales have been made to secure profits, buyers still preponderate. The latest news from the mine is very satisfactory. In reference to the recent discovery the manager reports:—"The ore in Salt's level west continues to improve both in quality and quantity, and is extending east and west, with dip towards the north."

Kit Hill Great Consols, 2*½* to 2*¾*; the tunnel level has been driven in the past month about 9*½* fms., and the sinking of the north shaft is about 2*½* fathoms.

South Devon United, 2*½* to 2*¾*; the lode in Martin's shaft is valued at 20*l.* per fathom. The sampling of copper ore next month will be about 200 tons.

South Wheal Frances, 6*½* to 6*¾*; an excellent report was read at the meeting of shareholders on Tuesday. To pay for additional new materials and machinery (about 1400*l.*), a call was made of 5*s.* per share. An additional amount of 800*l.* had been spent and charged in the account in the development of the western part of the mine. The remarks of the manager were clear and explicit as to the great future of this important property, in opening out one of the best tin mines around Carn Brea Hill, or Dolcoath district. The machinery and materials, it appears, in new and additional erections, have cost the company about 12,000*l.*, or equal to about 3*l.* per share during the past two or three years, so that the mine and surface plant is now in an excellent position for giving good profits and resuming the dividend paying position.

Akankoo, 3-16ths to 5-16ths: the resolutions to be submitted at the meeting of shareholders to-morrow (Saturday) are (by the directors)—"That Mr. Wyatt be removed from being a director of the company." "That the directors be empowered to issue 10,000 preference shares bearing interest at 10 per cent. *pro rata* in the first instance amongst the present shareholders, no allotment being made unless 5000 shares be applied for," and "That the directors be empowered to purchase such machinery as may be necessary to work the mine at a lower level." By other shareholders—"That Mr. G. C. Taylor be removed from the office of director, and that Mr. C. J. Harvey be appointed in his place;" "That Colonel George Arbuthnot be removed from the office of director, and that Mr. Charles Wise be appointed in his place;" "That Mr. F. W. Raikes be removed from the office of director, and that Colonel H. Mollerus Le Champion be appointed in his place; and "That Mr. Maurice Grant be appointed a director of the company."

Lake Superior Native Copper, 1-16th to 3-16ths; at the meeting to be held on Thursday next, the resolutions to be submitted are—that the company be wound up voluntarily, and that a contract be entered into with a trustee, who shall be authorised to take such steps and make such payments as may be necessary out of the funds of this company, for the formation of a new company, on the following basis:—The total capital of such new company is to be 180,000*l.*, divided into shares of 1*l.* each, of which 120,000 are to be ordinary shares, and 60,000 are to be considered as half-paid up, and to be preference shares, bearing a preference dividend of 6 per cent. per annum, contingent upon and payable out of the profits of each year. Out of the 120,000 ordinary shares 103,482 were to be allotted as fully paid-up shares to the liquidator or liquidators of the old company for distribution rateably amongst the ordinary and deferred shareholders of that company. And the new company is to be so constituted that every holder of ordinary shares therein who shall subscribe for any preference shares or share therein shall for each preference share subscribed for by him have two of his ordinary shares converted into two ordinary A shares. The profits each year are to be divided in payment of—1. 6 per cent. on the preference shares.—2. Of 6 per cent. on the ordinary A shares.—3. Of 8 per cent. on the ordinary shares, and all surplus is to be divided equally amongst all the shares, whether preference, ordinary A, or ordinary, and the three classes of shares are to rank as regards capital in the same priority as they rank in regard to the payment of the 6 per cent. dividend. It is to be lawful for the new company, who may be willing to accept the same, two fully-paid preference shares and one fully-paid ordinary A share in exchange for every 1*l.* of his or her mortgage debentures. All shares in the new company which are not taken up under this arrangement will be offered, in the first instance, *pro rata* or otherwise to the shareholders in the new company, and any not so taken up may be subsequently dealt with at the discretion of the directors. The assets, debts, and liabilities of the old company are to be taken over by the new company.

Ruby and Dunderberg, 2*½* to 2*¾*; the usual report from the mines chiefly refers to the Lord Byron, where most of the work is being done, and the chief interest centres. One of the discoveries referred to last week is improving in size considerably, and looks very promising. The other one (at the west shaft) did not look quite so well. Some more tributers have gone to work at the Dunderberg, 13 men being now at work at this mine.

In Lead Mine shares there has been no improvement, and the quotations, which are quite nominal, remain about the same. Roman Gravel, 2*½* to 2*¾*; in addition to the 100 tons of lead ore sold last week at about 7*½* *s.* per ton, another sampling of 100 tons has been

made for sale next week. The agents report that the mines are opening out well.

Leadhills, 1*½* to 1*¾*; the various operations in driving north and south, especially the 10 fm. level below Gripp's, continue to open a rich course of lead ore.

The Société Anonyme des Mines et Fonderies de Pontgibaud will hold its annual general meeting in Paris on Nov. 29.

The numbers are announced of 196 bonds, amounting to 7100*l.*, of the National Nitrate Railways Company, of Peru, issue of 850,000*l.* that have been drawn for payment at par on Dec. 1 next at the offices of the International Financial Society, in London.

The Imperial Ottoman Bank announce the conversion of Five per Cent. General Debt, and Six per Cent. Loan, of 1873, of the Ottoman Public Debt. The stamped bonds must be presented with all their unpaid coupons attached, including those dated January, 1885, for the General Debt, and October, 1884, for the 1873 Loan, and the registered bonds, with all coupons, including March 1885. The bonds neither registered or stamped must be first deposited to receive arrears of dividends, and to be stamped they can be presented on and after Nov. 3 at the offices of the bank.

PARRY V. COLMER.—Mr. G. Johnson, solicitor, Holborn Viaduct (Nov. 7) writes:—In last week's *Mining Journal* Messrs. Watson Bros. say they have referred to the solicitors for the plaintiffs—I presume Messrs. Stacpoole and Son—who, as alleged, informed them in effect that nothing of the kind stated in my letter took place before the Master. In again repeating my statement I beg to enclose you the original summons issued by Messrs. Stacpoole and Son, with the Master's endorsement, as follows:—"Dismissed with costs to defendant in any event." Who is speaking truth may now be easily discovered. You will oblige by kindly returning me the summons. [We have verified above statement and returned the summons.—Ed.] I may mention that the Recorder has this day granted a rule to enter judgment for my client in the action brought in the Mayor's Court.

NEDENES COPPER MINES.—The agent's report states that at Skymur there are nine men stopping, the aggregate value of the stopes being 9 tons of copper ore. The end of the 60 fm. level is worth 1*½* ton per fathom; the winze below the 25, 4 tons; the rise about the 50, 4 tons; and the lode in the shaft at Sletne 3 tons. The two calcining furnaces are completed, and they have begun the smelting operations. They are also dressing the fine ore, about 50 tons being ready. The mines are looking well, and are producing good quality ore. Mr. Napier has been making some experiments on the contents of the large lode at the Mesel property, and has sent over some samples of regulus, which yield on analysis 11*½* per cent. of copper and over 7 per cent. of nickel. About 1 cwt. of this is expected soon, with a view to test its commercial value, as it is believed large quantities can be supplied. The company has also received an enquiry for sulphur pyrites, which can be obtained at Mesel, and this may also lead to valuable results. On the whole, the Nedenes undertaking is giving strong evidence of the great importance attached to it, and is likely to yield still more substantial proofs of success, even sooner than was expected. It will be remembered that the well-known authority, Capt. Plummer, is amongst those who have reported very favourably on this company's properties.

OSCAR GOLD MINE.—The manager writes, under date Oct. 29:—"An hour ago we came on a rich batch of gold in the rise in the north-east level in Oscar shaft. A good deal of visible gold can still be detected in the back of the rise. This is encouraging. Will report further particulars in a day or two."

VICTORIA (OF VENEZUELA) GOLD COMPANY.—The directors have secured the services of Mr. Walter Ness, an engineer of high professional reputation, amongst his numerous testimonials being one from Mr. Gladstone, the Premier of England. Mr. Ness left for the mines by the Moselle on Nov. 3, and was accompanied to Southampton by one of the directors, the secretary, and Mr. David Smieton, a member of the committee of Scotch shareholders at Glasgow (through whose influence Mr. Ness' services were mainly secured), to wish him "bon voyage."

OWEN VEAN AND TREGUETHA-DOWNS MINE.—The resident engineer reports a considerable improvement in the south lode at the 67 level. The following telegram was received yesterday from the mine at the offices of the company:—"Four tons fair average lode from 67 produces 121 lbs. of tin per ton of stuff."

SOUTH SHROPSHIRE LEAD MINES.—There is a very good discovery at Shelve Pool, near the East Grit; lumps of lead of 2 cwt. have been taken out near the surface. The South Roman Gravel Mine recommenced working on Nov. 1. There are many enquiries for the Ladywell Mine.

COPPER ORES.

Sampled Oct. 17, and sold at Tabb's Hotel, Redruth, Nov. 6.

Mines.	Tons.	Price.	Mines.	Tons.	Price.
Mellancar	72	£2 10 0	Mellancar	55	£1 19 6
ditto	71	2 10 0	ditto	51	1 6 6
ditto	70	1 11 6	South Tolarne	37	5 4 6
ditto	65	2 5 6	ditto	36	2 19 0
ditto	61	2 7 0	Tincroft	31	2 1 0
ditto	60	2 10 0	East Wheal Uny	25	3 9 6
ditto	59	1 10 6	North Wheal Busy	17	3 10 6
ditto	58	1 15 6	ditto	3	9 6 6
TOTAL PRODUCE.					
Mellancar	621	£1275 15 6	East Wheal Uny	25	£ 85 17 6
South Tolarne	73	299 10 6	North Wheal Busy	20	87 13 0
Tincroft	51	104 11 6			

Average standard.....£24 1 0 | Average produce.....6*½*
Average price per ton.....£2 7 0
Quantity of ore.....790 | Quantity of fine copper, 47 tons 13 cwt.
Amount of money.....£1855 13 6
LAST SALE.—Average standard, £27 10 0 | Average produce.....5*½*
Standard of corresponding sale last month, £27 5 0 | Produce, 8

COMPANIES BY WHOM THE ORES WERE PURCHASED.

Names.	Tons.	Amount.
Vivian and Sons	97 <i>½</i>	271 15 11
P. Grenfell and Sons	57 <i>½</i>	217 13 11
Nevill, Druce, and Co.	145	212 13 6
Williams, Foster, and Co.	87	210 15 0
Elliott's Metal Company	79 <i>½</i>	176 9 8
Charles Lambert	324	786 5 6
Total	790	£1855 13 6

NO SALE on Thursday next.

LEAD ORES.

Date.	Mines.	Tons.	Price per ton.	Purchasers.
Oct. 31—Central Foxdale	40	£11 3 6		
Nov. 1—Foxdale	100	8 3 6		Sheldon, Bush, and Co.
4—ditto	150	8 16 6		Walker, Parker, & Co.
6—Pierrefitte	70	11 12 6		Walker, Barton, and Co.
7—South Darren	25	12 6 6		Walker, Parker, & Co.

COPPER ORES.

Date.	Mines.	Tons.	Price per ton.	Purchasers.
Nov. 7—South Darren	12	£2 5 2 6		Nevill, Druce, and Co.
—ditto	38	0 19 6		ditto

CARN CAMBORNE TIN AND COPPER MINE.

WANTED TO PURCHASE, any part of TWO THOUSAND SHARES for cash.

State lowest price by letter to "F. R. 340," care of Deacon's, Leadenhall-street, E.C.

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MESSRS. WATSON BROTHERS, in referring to their public Circular in the *Mining Journal*, would also observe that they BUY and SELL SHARES at the *net* market prices of the day in all well-established and respectable Mining Companies; also, in English and Foreign Funds Railway Stocks, &c.

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ARK BUYERS OF
LEAD ASHES, SULPHATE OF LEAD, LEAD SLAGS,
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and DROSS or ORES containing
COPPER, LEAD, AND ANTIMONY.

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MANGANESE, BARYTES, SPARS, and ALL ORES on SALE
or PURCHASE.

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Terms very moderate, and expense of sending Engineer from
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CHEMICAL AND MINING ENGINEER,
(Four years Chief Chemist and Metallurgist to the Rio Tinto Com
pany, 13 years experience in Cornwall.
Author of numerous works on Mining and Mineralogy)
ADVISES ON GENERAL CHEMICAL AND MINING MATTERS, AND
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Supply accurate and reliable information on all Mines, Home and Foreign.
Execute orders and advise the Purchase or Sale of Mining Securities.
Undertake the Management of Mines or Mining Companies.
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Twenty years' experience.

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DEALER, 14, ANGEL COURT, LONDON, E.C.
Member of the Redruth Mining Exchange.

Those who wish to buy or sell any mining shares should consult Mr. JAMES, Mr. J. devotes his entire attention to home and foreign mines, and places his special information at the disposal of his clients. That mining offers undoubted advantages for quick returns no one can deny. Look at the enormous sums of money paid in dividends by home and foreign mines. A large number of wealthy families owe their present proud positions to adventuring in LEGITIMATE MINES. With a better price for metals many of the smaller priced shares would immediately advance some hundreds per cent.

TREVAUNANCE also POLBERRO SHARES SHOULD BE BOUGHT AT ONCE. There are many mines worth attention, as proceedings of recent shares holders meetings prove beyond doubt. During the last 40 years there has no such opportunity presented itself as the present for investment in British mines. Metals are certain to advance. In well-informed circles no doubt is entertained on this point. Buyers must not further delay orders.
See Selected List published by S. JAMES, 14, Angel-court, London, E.C.

SPECIAL BUSINESS in the following or part:—		
25 Redford United, 27 <i>½</i> 6	10 S. Condurow, £3 <i>½</i>	100 Kongaberg Silver.
20 Carn Camborne, 5 <i>½</i> 6d	20 South Darren, 5 <i>½</i> 3d	500 Kapanga, 2 <i>½</i> 9d.
100 Collacombe Cons., 4 <i>½</i> 6	100 South Frances, 2 <i>½</i> 6 <i>½</i>	100 La Plata, 5 <i>½</i> 3d.
10 Devon Cons., £2 <i>½</i> 6	50 Trevaunance, 5 <i>½</i> 6d	100 Lead Chance, 1 <i>½</i> 6
45 D. Friendship, 2 <i>½</i> 9d	50 Trevaunance, 5 <i>½</i> 6d	50 Lisbon Berlyn, 5 <i>½</i> 6d.
20 Devon United, 5 <i>½</i> 6	50 West Crebor, 1 <i>½</i> 6d	50 Montana, 2 <i>½</i> 6d.
160 Drakewalls, 2 <i>½</i> 6d	10 West Kitty, £7 1 <i>½</i> 6d	50 Mysore Gold, 2 <i>½</i> 3d.
30 East Blue Hills, 5 <i>½</i> 6	25 West Polidice, 6 <i>½</i> 6d	25 New Emma, 1 <i>½</i> 3d.
10 Ecton, 4 <i>½</i> 6d	20 Wheal Bassett, £2 <i>½</i> 6	100 Nouveau Monde, 2 <i>½</i> 6d
50 East Wh. Rose, 10 <i>½</i> 6	15 Wheal Crebor, 2 <i>½</i> 6d	50 Nundydoo, 8 <i>½</i> 6
20 Frongoch, 8 <i>½</i> 9d		50 Oscar Gold, 12 <i>½</i> 6d.
100 Goginan, 2 <i>½</i> 3d	50 Asia Minor, 3 <i>½</i> 6d	paid, 16 <i>½</i> 3d.
10 Great Laxey, £2 <i>½</i> 6	50 Akankoo (F.P.), 4 <i>½</i> 6	50 Oscar Gold, Vendors' Shares, 2 <i>½</i> 6
10 Gunnislake (Oilt.), 8 <i>½</i> 6	200 Balkis, 3 <i>½</i> 6	50 Organos, 1 <i>½</i> 6
10 Great Holway, 15 <i>½</i> 6	75 Bratsberg, 2 <i>½</i> 6d	50 Potosi, New, 13 <i>½</i> 6d.
50 Home Mines Trust, 2 <i>½</i> 6	45 Cartago, 12 <i>½</i> 6d, 6 <i>½</i> 6	100 Port Phillip, 2 <i>½</i> 3d.
50 Killifreth, 14 <i>½</i> 6d	100 Cankim Bamoo, 2 <i>½</i> 6	100 Panulicillo, £3 1 <i>½</i> 3d.
50 Kit Hill Gt. Cons., 2 <i>½</i> 6	10 Copiapo, £2 <i>½</i> 6	25 Ruby, 1 <i>½</i> 9d.
10 Kitty St. Agnes, 1 <i>½</i> 6	50 California Gold, 1 <i>½</i> 6	11 Richmond, £4 <i>½</i> 6
50 Mounts Bay, 2 <i>½</i> 9d	170 Callao Bis, 15 <i>½</i> 6	20 Rio Tinto, £13 <i>½</i> 6
25 New Kitty, 2 <i>½</i> 6d	150 Chile, 2 <i>½</i> 6d	10 Schwab's Gully, £6.
100 New West Caradon, 3 <i>½</i> 6	30 Chontales, 2 <i>½</i> 9d	40 Spitzkop, 1 <i>½</i> 6
100 Old Gunnislake, 2 <i>½</i> 6	100 Colombian Hyd., 10 <i>½</i> 6	100 Tacuahu, 1 <i>½</i> 9d.
50 Old Shepherds, 1 <i>½</i> 6	100 C. Sth. Austr. Cop., 2 <i>½</i> 6	25 Tocopilla, 3 <i>½</i> 6
20 Phoenix United, 37 <i>½</i> 6	80 Denver Gold, 2 <i>½</i> 6	11 Tollima A, £2 <i>½</i> 6
50 Polberro, 4 <i>½</i> 6	50 Frontino, 12 <i>½</i> 6d	15 Transvaal Gold, 17 <i>½</i> 6
50 Prince of Wales, 7 <i>½</i> 6	100 Glenrock, 2 <i>½</i> 9d	10 U. Mexican, £3 8 <i>½</i> 9d.
80 Parys Copper, 1 <i>½</i> 6d	50 Gold Coast, 4 <i>½</i> 6	80 Victoria Gold, 6 <i>½</i> 6
15 Roman Gravel, 7 <i>½</i> 6	20 Hoover Hill, 4 <i>½</i> 6d	
20 South Caradon, 13 <i>½</i> 9d	250 Indian Consol., 2 <i>½</i> 9d	
	20 Ja-rall, 4 <i>½</i> 6	
	100 Kohinoor B, 3 <i>½</i> 6d	

* S. JAMES can buy or sell any of the above shares. Correspondence invited. Trustees, executors, and others will find their duties considerably lightened by submitting schedule of shares held to Mr. JAMES, who will return the same by next post with market values attached.
Orders by letter or telegram promptly attended to. Speculative accounts not opened on any terms whatever. Send for selected list of Mines. CLOSING PRICES issued every Tuesday and Friday.
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Abonnements annuels: Belgique, 25 francs; pays voisins, 30 francs.
S'adresser à Mr. NICOLAS FASIRE, Ingénieur-Administrateur.
Rue des Croisades 32, à Bruxelles.

RE EAST LOVELL MINE.

WITH A VIEW TO THE ELICITING OF INFORMATION, and
the arriving at a plan of common action for the benefit of the adven-
turers in the above-named mine, I beg to invite a MEETING of such adven-
turers, to be HELD at the "Four Swans" Tavern, Bishopsgate-street Within,
London, E.C., on FRIDAY, the 14th day of November, at Two o'clock P.M.
E. J. BARTLETT.

30, Great St. Helen's, London, E.C., November 6, 1884.

THE ASIA MINOR MINING COMPANY (LIMITED).

Notice is hereby given, that an EXTRAORDINARY GENERAL MEETING
of the members of the Asia Minor Mining Company (Limited) will be HELD at
the Cannon-street Hotel, in the City of London, on WEDNESDAY, Nov. 12th,
1884, at Two o'clock, to receive the directors' report and statement of accounts.
The Transfer Books will be closed from November 2nd to 12th, both days in-
clusive.

Dated the 29th October, 1884. By Order, PHILIP A. EAGLE, Secretary.

MINE "EL CALAO," GUAYANA, VENEZUELA.

32,200 SHARES.

Gold in bars produced in the month of September, 1884, and re-
mitted to Messrs. Baring Brothers and Co., London—14,101.64 ozs.
DIVIDEND distributed for each Share, 24 francs.

(Signed) A. LICIONI, President.

(Signed) VICTOR J. GRILLET, Treasurer.

FOR SALE, at BRENDON HILLS MINES:—
ONE 28 inch cylinder PUMPING and WINDING ENGINE, stroke
9 feet, with fly wheel, winding gear attached, with one 12 ton boiler.
Also ONE 25 inch cylinder PUMPING and WINDING ENGINE, stroke 9 feet
with fly wheel, winding gear attached, with one 10 ton boiler fitted with
galvanised tubes.

Any further information may be obtained from Capt. HENRY SKEWIS, Brendon
Hills Mines, Washford, Taunton.—Dated March 12, 1884.

VERY VALUABLE MINING MACHINERY, &c., ON SALE.—
PUMPING, WINDING, AIR COMPRESSING ENGINES, with Boilers,
lifts of pumps and workings, complete; continuous ORE DRESSING MA-
CHINERY, complete, with Water Wheels or Engines; heavy and light RAILS,
and MINING MATERIALS and STORES of every description, CHEAP.
Please state requirements to Mr. JOHN L. M. FRASER, Greenfield, Wrexham.

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KELLY'S DIRECTORY OF THE MERCHANTS,
MANUFACTURERS AND SHIPPERS OF THE
UNITED KINGDOM.

Being a Guide to the Export and Import Shipping, and Manufacturing
Industries of the United Kingdom, with the Colonies and Foreign Countries.

This work gives a vast amount of information respecting the business carried
on between the United Kingdom and the Colonies and foreign countries, show-
ing the description of goods and the amount thereof exported to each Colony or
country abroad, the British ports whence shipments are made, the merchants,
factors, and shippers at the various ports and towns in England, the manufac-
turers of the principal goods exported, and the merchants and others abroad who
are importers or buyers of British goods.

It also gives complete information as to the various descriptions of goods, and
the amounts thereof imported from abroad into this country, with the names
of the merchants and shippers, and also the manufacturers at the principal
towns of the various goods imported.

The work is divided into three principal divisions, the first of which comprises
the various foreign countries and British possessions throughout the world to
which British manufactures are exported.

Under each of these is given, first—a statistical account of the country; the
financial position; business relations with this country, with, in the case of
foreign states, the names of the British and other Consuls; the name of the
Minister in this country; Consuls, Vice-Consuls, &c., at the various ports and
places in this country; the principal bankers, the merchants, commission mer-
chants, buyers of English goods, and the manufacturers, &c., at the principal
towns of the various goods imported; the various ports in each country; also
the ports in this country whence shipments are made; tariffs, &c., &c.; a tabular
statement showing the exports from this country during the last three years; a
list of the merchants and shippers in the various British towns; list of steamers
and other vessels sailing from the ports; also a list of the various manufactures
that are exported from this country.

The second division comprises an alphabetical list of the exporters from this
country, stating the class of goods exported by them.

The third division of the work embraces the names and addresses of the actual
manufacturers, or manufacturers' agents, of the articles exported, describing as
clearly as possible the specialities of each manufacturer.

"It is almost exhaustive as a guide to the shipping and manufacturing in-
dustries, both export and import, of Great Britain and Ireland."—The Times,
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"Merchants and manufacturers of all kinds will find the Directory a valuable
guide, whether their interests are concerned in exports or imports."—Daily
Chronicle, Sept. 12th, 1884.

"It abounds in information of the kind which merchants, manufacturers, and
exporters are constantly in need of. Its scope, however, is not confined to the
classes who in this country have business with the colonies and foreign parts;
but includes also the principal merchants abroad, so that the book becomes a
tolerably complete guide to the import and export industries of all countries
with which Great Britain has any mercantile relation, and vice versa."—Daily
News, Sept. 17th, 1884.

"In collecting the names of foreign and colonial firms—a task of considerable
difficulty, as will be understood—Messrs. Kelly have had the assistance of the
British Consuls, many of whom have given personal testimony to the important
service this Directory fulfils in commercial circles abroad."—European Mail,
Sept. 26th, 1884.

London: KELLY and Co., Publishing Office, 51, Great Queen-street, W.C.

Notices to Correspondents.

GERMAN LOTTERIES.—Hamburg Lottery agents being again abusing the Inter-
national Postal privileges by sending their delusive circulars broadcast through
the post to anyone whose name can be found in an English directory, we
repeat the caution frequently given with regard to them. The agents who
send these circulars have no connection with the Government, and are of a
class corresponding to the common betting men in this country, and equally
difficult to recover money from—Englishmen have no legal remedy against
them. The current circular, referring to the Hamburg Lottery No. 237, pre-
tends to offer a whole original ticket for 6 marks (6s.), and infers that this
gives a chance for a 500,000 marks (25,000l.) prize. The payment of the 6s.,
however, renders the subscriber liable for 126 marks (63s.), the ticket for
each of the seven classes being 6, 12, 18, 24, 30, 36, and 42 marks respectively;
and it is not the practice of these agents to remit any amount won in the
earlier classes in cash, but in extra tickets of succeeding classes, accompanied
by a demand upon the subscriber for further subscriptions in cash, to make up
differences and commission; so that in the course of a few months the inno-
cent (?) subscriber of 6s. finds himself involved in liabilities amounting to
many pounds, as the unfortunate owner of perhaps a dozen 6s. tickets
carrying a liability of 3l. or 4l. each.

COPPER SHEATHING IRON SHIPS.—Editor Liverpool Journal of Commerce:—
We should have been glad to reprint the paragraph sent for quotation from the
current number of the L. J. of C., concerning Sir Hussey Vivian's process for
sheathing iron ships with copper, had it not been a mere plagiarism of the
original announcement made in the Mining Journal of Oct. 11, and widely
reprinted throughout the country. If the L. J. of C. accurately indicated, in
being a month behind time, chronic drowsiness of British commercial men
(though happily not such drowsiness exists) the present commercial depression
would be explicable; but, as it is, we can only hope that commercial revival
will commence before the literary Liverpoolian awakens.

BELT COPPER MINING COMPANY.—It was my intention that in my letter, dated
Oct. 24, and published in last week's Mining Journal, the sentence "and I see
no reason why it should equal the well-known lode of which it is a continua-
tion," should read "and I see no reason why it should not equal the well-
known lode of which it is a continuation." Will you kindly allow me to make
this important correction?—H. G. BLYTH.

CASSELL'S PROCESS FOR EXTRACTING GOLD FROM REFRACTORY ORES.—In the
report last week of my paper "On Gold Extraction" I notice a slight inaccu-
racy, which, if uncorrected, may perhaps give a wrong impression of the
value of Mr. H. R. Cassell's process for extracting gold from refractory
concentrates by electrolysis. The passage I refer to reads thus:—"Hydro-
chloric and hypochlorous acids were evolved, which precipitated the gold
as fast as the chloride brought it into solution." What I intended to convey
was—that if these acids were allowed to remain in the free state they would
react upon any iron compounds present, and thus form a salt of that metal
capable of precipitating any gold which happened to be in solution. It is in
order to prevent the formation of these iron salts that the lime is added, this
earth neutralising the free acid and precipitating any iron previously taken
up by it, leaving the gold in solution. Neither hydrochloric nor hypo-
chlorous acids have in themselves the power of precipitating gold.—ROWLAND
J. ATCHERLEY.

HUSBAND'S OSCILLATING CYLINDER STAMPS.—In reporting my paper, read at the
meeting of the Mining Institute on Oct. 23, you omitted the time occupied in
stamping the 2000 tons 15 cwt. of tinstone; consequently, my figures would
appear to be inaccurate. The time was exactly 23 days 5½ hours, being at the
rate of 86 tons per day.—WILLIAM DEERY. [The paper is published in full
this week.]

"LE NICKEL."—Details are asked for as to the address of offices, business stand-
ing, &c., of a French company bearing this title. If the prospectus and last
balance-sheet be forwarded an abstract of them shall be published. The con-
cern does not appear to be known either on the Parisian or London markets
by dealers who usually deal in such securities, but it is possible that it is
chiefly in private hands.

THE GOLDEN QUARTZ REEFS OF AUSTRALIA.—In the letter of Mr. W. Nicholas,
in the Supplement of to-day's Journal, the diagram No. 25 should be described
—"Rough idea of saddle formed quartz reef, Koch's Pioneer Mine, Garden
Gully reef, Long Gully, Bendigo, looking north."

LIME AS SUBSTITUTE FOR GUNPOWDER FOR BREAKING DOWN COAL AND ROCK.
—J. C. B. (Cardiff): The lime process was fully and carefully tested by the
mining engineers of Scotland and pronounced to be a failure; you may there-
fore quite assume that the process is of no practical value, and that the adop-
tion of it is not worth discussing in connection with the new rule as to blast-
ing between shafts.

Received.—"A. E."—"Justice" (Postmark, Ludlow): Has not given name and
address—"W. D."—"Publicity": It is certainly not the practice of all com-
panies "to 'Burke' reports that are not of a rosy tint," and the shareholders
have the remedy in their own hands. If they forward us the notices of meet-
ings when received by them we will willingly send a reporter, and, unless he
be formally expelled, his report will be published. Directors seldom expel
reporters, unless the meeting be exclusively composed of apathetic and milk-
sop shareholders, or those who, like "Publicity," have not the courage to
give their names and addresses—"T. B. J.": Inserted—"Silver" (North Ken-
sington): Particulars shall, if possible, be obtained, but the company is never
heard of on the market—"B. A. M." (Storgatan, Gothenburg): Ditto—"A. S."
(Bratsberg): You forgot to forward name.

THE MINING JOURNAL,

Railway and Commercial Gazette.

LONDON, NOVEMBER 8, 1884.

SHOT-FIRING IN MINES—THE NEW REGULATION.

We would not for one moment endeavour to under-estimate the
influential character of the deputation which waited upon the Home
Secretary on Tuesday last in reference to shot-firing in mines, nor
the importance of the subject under review. In addition to Lord
ABERDARE (ex-Home Secretary), there were no less than 11 Members
of Parliament, besides a most numerous and influential deputation
of colliery proprietors and managers, as well as working colliers,
representatives chiefly from the South Wales district. Almost every
Member of Parliament then present is personally interested in mines,
and, consequently, able to speak with some authority upon the point
at issue; and we may take it for granted, therefore, that every point
which could be urged in favour of the continuance of the present
system, and against the proposed alteration, was laid before the
Home Secretary with all the ability and emphasis which the deputa-
tion could command. Lord ABERDARE, as the exponent of the views
of the deputation, certainly made out a strong case, and especially
so in reading the letter from Mr. NIXON, probably the
largest coalowner in the South Wales district, when he said—
"We have three large collieries which will be affected by the pro-
posed new rule:—The Deep Duffryn, employing 667 workmen under-
ground, the Navigation, employing 757 men, and the Merthyr Vale,
employing 1032 men; and from these pits, during the last 27 years,
millions of tons have been raised and tens of thousands of shots fired,
and not a single instance of any explosion had taken place." That is
admittedly a most telling point, the inference to be deduced there-
from being that where due care and caution are exercised the pre-
sent rule seems adequate to provide for the necessities of the case.
But the Home Secretary has to face this difficulty and to look sternly
in the face this fact—that the same care and precaution, as taken
in the Duffryn Pits, are not exercised in some of the fiery mines of
Wales, or such an appalling loss of over 200 lives would not be
annually sacrificed. Even the most determined opponents of the
new regulation were bound to admit that in order to ensure the exist-
ing rule being carried out in its integrity a large additional number
of Inspectors would have to be appointed—a step the discretion of
which is, to say the least, very questionable.

Looking dispassionately at the whole question, and granting that
the entire prohibition of shot-firing would result in a good deal of
temporary inconvenience, there are three or four points in the reply
of the Home Secretary which seem to us unanswerable. Sir
WILLIAM HARCOURT told the deputation that whilst he was most
anxious not to unnecessarily interfere with any commercial enter-
prise in the country, but especially one so necessary to the welfare
of the country as the mining industry, yet he was to an extent
charged with the safety of thousands and tens of thousands of the
innocent miners of the country. This is indeed a grave responsi-
bility, and his lordship is bound, therefore, by every consideration
to try every known means which either science or ingenuity can sug-
gest to diminish the loss of life. Over 200 lives sacrificed every year
to shot-firing alone is a fearful fact which cannot be gainsaid nor
reasoned away, and one would think should induce the colliery pro-
prietors and managers to give careful trial to any suggestion made
to prevent such loss of life. The Home Secretary, in the step he
has now taken, has not done so without the fullest consideration,
and a full knowledge of all the facts of the case. He is
backed up with the long-tried experience and practical skill
of almost every Government Colliery Inspector in the kingdom.

Shot-firing has also been denounced by a committee of practical
miners, who sat for the special purpose of investigating the question,
and also by the National Miners' Union. Mr. WYNN, of the South
Staffordshire district, in a special report makes the strongest repre-
sentations with reference to shot-firing. He says—"I trust you will
not allow any alteration in any clause, unless it is to make the clause
stronger, for from my own experience of 32 years I am convinced
that four out of every five explosions in mines are caused by the use
of powder." Such evidence as this cannot be ignored, and we con-
fess we are somewhat surprised that this was not alluded to at the
meeting on Tuesday, and, if incorrect, at once refuted and contra-
dicted.

The Home Secretary entertains a very strong opinion that shot-
firing in the collieries of South Wales could be safely carried out
between the shift, and he is in favour of such view the experience
of some of the managers of mines in the Lancashire, Derbyshire,
and other districts, and probably this would tend to diminish the
loss of life. But here, again, Sir WILLIAM is met by the assertion
that this is impracticable in the mines of South Wales. Baffled,
therefore, in his attempt to save the lives of the colliers on the one
hand, and not unnecessarily to interfere with the mining interests on
the other hand, the Home Secretary has determined, and we think
wisely so, to submit the solution of the difficulty to a committee of
practical and impartial men. His lordship said:—"The experience
of gentlemen whom I must rely upon very much for my information
in this matter is that shot-firing can be carried out between the shifts
in the South Wales pits, and, therefore, what I have proposed is cer-
tainly not in any arbitrary manner to force upon you a rule which
you think unnecessary for your safety, and which you think would
be injurious to trade, but to have a fair investigation of the point.
The question is now put into shape for fair decision, and I am quite
sure you would be better satisfied, and I should be better satis-
fied too, and I am also sure the public, who have the greatest
interest in your work, would too, if this matter were fully and
fairly investigated before impartial arbitrators." This, as we
have before remarked is the best step which could be adopted
in the face of the very formidable opposition which the Home Sec-
retary has to meet in his attempt to still further protect the lives
of the colliers. The whole country will look forward to this proposed
arbitration with a good deal of interest, and we can only hope that
the investigation will be a most exhaustive one, embracing every
suggestion which has been made.

THE DEVELOPMENT OF OUR FIRE-CLAY DEPOSITS.

Of late years the value of fire-clay for many purposes has been
more generally recognised, so that it now realises nearly as much
money per ton as some of the coal with which it is intimately asso-
ciated, consequently mineowners now find it advantageous to raise
it along with the coal which rests upon it. The fire-clays are of
various thicknesses, ranging from a few inches to 9 or 10 ft., and
formed the soil of the luxuriant forests which led to the formation
of coal itself. The stone is formed of carbonate of iron, along with
earthy matter similar to shale, with silica and alumina. Good fire-
bricks should contain about 60 per cent. of silica, and only a small
quantity of iron and carbonaceous matter. Pure clay or alumina is
infusible, and on exposure to great heat contracts a good deal;
but when alumina is combined with silica it will withstand the most
intense heat; but a mixture of alumina, silica, and lime will melt
at a low heat, the lime acting as a flux on the silica. Good stone
should consist of one-fifth of lime, one-fifth of alumina, and three-
fifths of silica, and these proportions in most instances can be ob-
tained without much trouble. The clays of Devonshire and Corn-
wall consist of three-fourths silica and one-fourth alumina, and
burn quite white; but there are many purposes, including earthen-
ware of some kinds, in which the two can be advantageously mixed.
Where the percentage of iron is large the colour of the brick is blue,
as in Shropshire, Staffordshire, and Worcestershire. The beds of
fire-clay enclose fossil stigmara, and no other fossil plants, which
sometimes returns to its natural form, sending out leaf-like roots.
There are various ways in which the clay can be economically raised.
The coal can be first worked in the usual way in stalls or long faces,
and then the fire-clay can be taken in a similar manner, or forced
up by blasting where such is carried on.

Fire-clay is also found in connection with the ironstone measures,
as well as in others. Last year some was raised in Dorsetshire, which
is far removed from any of our coal or ironstone fields; but though
in some districts there has been an increase in the tonnage raised,
in others it has been just the reverse, whilst some new fields have
been opened out. The following figures show the tonnage raised in
the various districts in 1874 and 1883:—

	1874.	1883.		1874.	1883.
Breconshire.....Tons	1,015	15,541	Lancashire.....Tons	74,505	123,041
Cheshire.....	9,200	10,020	Leicestershire.....	32,247	47,030
Carmarthenshire.....	—	22,931	Monmouthshire.....	130,739	115,140
Cumberland.....	33,984	56,974	Northumberland.....	91,068	151,594
Denbighshire.....	57,283	8,768	Shropshire.....	16,237	37,281
Derbyshire.....	23,164	9,322	Somersetshire.....	1,548	1,540
Dorsetshire.....	—	1,500	Staffordshire, North	2,508	22,110
Durham.....	735,203	525,696	do South	253,792	171,689
Flintshire.....	1,537	12,813	Scotland.....	237,586	454,449
Glamorganshire.....	155,392	121,222	Warwickshire.....	17,752	20,258
Gloucestershire.....	—	2,342	Waleshire.....	181,819	228,550
Ireland.....	8,209	3,403	Yorkshire.....	—	—

The above figures are the returns under the Coal Mines Regulation
Act; but in addition there were 122,857 tons returned under the
Metalliferous Mines Act and in open works in 1883.

PARIS INTERNATIONAL EXHIBITION, 1885.

The International Exhibition of Processes and Manufactures (Ex-
position du Travail) to be held in Paris under the patronage of their
Excellencies the Ministers of Commerce, of Public Instruction and
Fine Arts, and of Public Works, in July and following months next
year, promises to be thoroughly attractive from a business point of
view, although from the circumstance that it is to be held at the
Palais de l'Industrie in the Champs Elysées instead of in the Champ-
de Mars the space at disposal will, of course, be more limited. As
usual in these cases goods forwarded to the Exhibition will be con-
sidered as bonded, duties being payable only if the articles be ac-
tually sold; and a special feature has been introduced, which will
commend itself to exhibitors, who look upon these gatherings as
mere matters of business—"Exhibitors will have the right to attach
prices to their goods, and to effect sales in the Exhibition, but not
to remove anything during the time that the doors are open to the
public. In all cases articles disposed of must be immediately re-
placed by others of a similar character. Small portable articles
manufactured in the building may, however, be removed at any time.
Permission, upon special terms, may be obtained for the distribution
and sale of articles of food, wine, liqueurs, and other drinks." Official
labels to ensure the admission of the packages duty free will be sup-
plied to British exhibitors by the Commissaire Délégué in London—
Mr. EDMUND JOHNSON—and special facilities for transport as re-
duced rates will be provided. As nothing is to be admitted to the
Exhibition which is not distinguished by merit, interest, or impor-
tance of some kind, it may fairly be anticipated that the attractions
to visitors will be considerable; whilst the award of diplomas of
honour and certificates of gold, silver, and bronze medals will ensure
the relative merits of the respective exhibits being fully recognised.

The Exhibition will comprise seven groups subdivided into 55
classes, and two annexes devoted to science and art, but the real
of the Mining Journal will be more especially interested in the first
and second groups, the first of which includes the extraction and
use of metals and minerals, as well as raw products, and their indus-
trial employment; and the second embracing general industry, ma-
chinery, and products. In classes 1 and 2 of the first group mining
apparatus and products, and apparatus and products connected with
metallurgy will be included, and in classes 8, 9, 13, 14, and 15,
which fall in the second group, general mechanical appliances, ma-
chine tools, railway plant, and rolling stock, electricity and tele-
graphy, and construction of public works, so that there need be no
fear of an exhibit being placed in a class where it might possibly be
misled by those likely to appreciate its utility and value. The
scientific annexe will include geology, ethnography, hygienic

various instruments and apparatus for medicine, surgery, astronomy, weights and measures, and money of different nations; and the artistic annex will comprise paintings, sculpture, architectural models and designs, reproductions of ancient and modern monuments, paintings on enamel, porcelain, medals, &c., and industrial arts, and hence there will be every probability of articles applicable for general use being brought prominently before those likely to adopt them or encourage their adoption. The general regulations with which intending exhibitors have to comply are liberal, and by no means onerous, so that the development of the project will be watched with interest, and the progress made will be duly recorded.

SCOTCH PIG-IRON WARRANT MARKET.

Mr. W. WILSON (Glasgow, Nov. 6) writes:—The warrant market has shown considerable animation since this day week, and the price shows further improvement. A smart rise in the price of iron is not to be looked for nor desired in the present condition of trade, but it is natural that this market should give an immediate response to the smallest indication of a better demand; and it is encouraging to find in certain branches of the trade more readiness shown on the part of buyers to enter into engagements for the future. Shipments for the week do not compare favourably. There is no change in the number of furnaces blowing: 530 tons were taken out of store here last week, while 25 tons were taken out at Middlesbrough.

Thursday, Oct. 30.	Friday, Oct. 31.	Monday, Nov. 3.
42/7 1/2, 42/11 1/2, 42/8	42/7 1/2, 42/8 1/2, 42/9	42/8 1/2, 42/8 1/2, 42/8 1/2
42/7 1/2, 42/8 1/2, 42/8	42/7 1/2, 42/8 1/2, 42/8	42/8 1/2, 42/8 1/2, 42/8 1/2
1884.	1883.	1882.
42/7 1/2 ... 42/10 1/2	42/7 ... 42/10 1/2	42/7 ... 42/10 1/2
508,432 ... 588,264	508,432 ... 588,264	508,432 ... 588,264
8,949 ... 12,167	8,949 ... 12,167	8,949 ... 12,167
472,492 ... 558,789	472,492 ... 558,789	472,492 ... 558,789
35/3 ... 38/1 1/2	35/3 ... 38/1 1/2	35/3 ... 38/1 1/2
98 ... 118	98 ... 118	98 ... 118
5,940 ... 5,410	5,940 ... 5,410	5,940 ... 5,410
221,139 ... 229,533	221,139 ... 229,533	221,139 ... 229,533

NEGLECT TO KEEP REGISTRY OF SHAREHOLDERS.—At the Mansion House, on Monday, Messrs. J. B. Birch, H. B. Spink, J. J. Ney, and W. Whieldon, directors of the Roman Gravel Boundary Mining Company, were summoned by Mr. Caleb Titcomb, late manager of the Grosvenor Bank, Westminster, for having wilfully and knowingly obtained from keeping a book in which the names of shareholders should have been registered between April 17 and Oct. 25 last. The penalty for not keeping such a register was £1. for each day. Mr. Radall, a solicitor, cross-examined by Mr. Wontner on behalf of the directors, stated that the prosecutor was at the present time being proceeded against by the directors for various offences. Three of the directors were also on the board of the Grosvenor Bank. The Grosvenor Bank had advanced small sums of money to assist in floating the company, but its directors had no personal interest in it whatever. Mr. Geoghegan for the company stated, they had never received a single farthing of public money, and the present prosecution was one of spite. The Lord Mayor remarked that if the public had not been damaged it would be a waste of time to go further with the case. If the law has been contravened it was a mere technical error that had been committed, and he should not fine the defendants as directors for that. Mr. Geoghegan admitted that the company was guilty of a technical error and would submit to his lordship's decision. The Lord Mayor said that the case was a paltry one; but as the company had clearly not complied with the regulations of the Act he should order them to pay a fine of £1. and 3s. 6d.

REPORT FROM CORNWALL.

Nov. 6.—The condition of the market and its immediate prospects call for very little comment. No change has taken place worth noting, and none appears to be impending. All that can well be said is that there does not seem any ground for anticipating further decline. We are now rapidly approaching the season which proves most burdensome to our mines, in consequence of the increased water charges; but so far there is reason to hope that the winter may be favourable. A tolerably dry and mild winter would be a very great boon just at this juncture, and here at any rate the forecast appears favourable.

Adventurers in East Pool have certainly every reason to be satisfied with a mine that can make two-fifths profit, with tin a little over 40s. per ton; and although the drop in the standards within the last 15 months has cut down their dividend from 30s. to 18s., still it is something in these days to pay a substantial dividend at all. And what is equally to the purpose is the evidence afforded of the lasting character of the mine. The various points in operation total up, mostly at really moderate figures, to an aggregate of over 1000l. per fathom. There is no fear of the future of a mine which has so many points of value as this, even at the present low ruling prices.

So far as the mining interest generally is concerned, it is of no particular consequence whether it has been made to suffer by the action of one lord or another. The effect of the present condition of the land laws affecting mining is bad in any case, and needs reformation by whoever they may be worked. It is only fair, however, that in all cases of this untoward application the right horse should bear the right saddle. Mr. Pendarves has been censured for what may be almost called the practical collapse of South Tolarne, by favouring South Condurrow at the expense of that mine. Captain Rich has, however, put quite a different aspect on the case. The managements of these two mines are, he says, in perfect accord, and ready to work the ground supposed to be in dispute for their mutual advantage, and the real objection comes from Sir Vyell Vyryan, who refuses to allow the arrangement to be carried out. Of course, these are all questions of fact, and, possibly, may involve some controversy; but, meanwhile, the statement of Capt. Rich is distinct enough, that whereas South Tolarne and South Condurrow have entered into an amicable arrangement, to which Mr. Pendarves has acceded, that arrangement cannot be carried out, because of refusal on the part of Sir Vyell Vyryan. The South Tolarne adventurers at their recent meeting resolved—"That the best thanks of this meeting be conveyed to the committee of the South Condurrow Mine, and to Mr. W. C. Pendarves, for the cordial disposition shown to assist this mine in recent negotiations."

Wheal Jane winds up with a total arrears of 3825l. 11s., two-thirds of which accrue on 2473 forfeited shares, a very unpleasant amount. Some strong remarks were made at the meeting upon the action taken by Lord Falmouth, not merely in relation to the stopping of the mine, but upon subsequent events. Capt. Southey stated that Lord Falmouth's agent had already visited the mine to set it at work on tribute, to which Capt. Rich rejoined—"It is certain there are always birds of prey following Lord Falmouth's office ready to pounce down upon a carcass." Now, as the pitwork has all been drawn, it is certain that the only work that can be done on the mine must be above the adit, and the whole business, therefore, seems to resolve itself into this—That which Lord Falmouth refused to allow the adventurers, who have laid out thousands of pounds year after year in an attempt to develop the mine to do, and which, when they propose to do it, his agents call "picking out the eyes," he is willing to do on his own account and for his own profit. We shall be glad to hear that this is not so, but if it is the case, why did he object to allow the adventurers to do upon dues what he is ready to permit on tribute? And is not the only difference between the two cases the difference of the amount realisable by the lord on tribute as compared with dues? It has been said that the history of Wheal Jane, therefore, is about to repeat itself. If so, is it not high time that legitimate adventurers should be protected from such profitable caprice?

The annual meeting of the Royal Geological Society of Cornwall has been held at Penzance, under the presidency of Prof. Warrington Smith, F.R.S., who delivered an address bearing upon the general and local condition of modern phases of geological science, espe-

cially in their application to the more recent geology of Cornwall and the discovery of a plocene deposit at St. Erth. Of the Cambrian strata there appeared to be in the county a considerable area. His references to mining were chiefly in connection with the mineral deposits of Nevada, the downfall of which a prosperous State might have been averted if the people had been provident. The fault of too hurried a grasping of making the most of the present was not unknown, however, in other mineral districts besides Nevada. The papers read were by Messrs. H. Fox and Somerville, of Falmouth, "On Strata in the Lizard District," Mr. E. N. Worth, "On the Raised Beaches of Plymouth Hoe," and by Mr. F. Millet, of Marazion. It is very easy to point the moral of Mr. Smyth's allusion to "grasping the present;" but the adventurers in South Frances may congratulate themselves that they have done their best for the future. Practically the whole of the loss shown in the accounts this week is really invested capital that ere long must yield a return.

REPORT FROM DERBYSHIRE AND YORKSHIRE.

Nov. 6.—Lead mining in North Derbyshire appears to be fast dying out, for lately some of the best known mines have been closed. It cannot be altogether owing to the exhaustion of the ore, for no doubt there is still plenty remaining; but it cannot be worked to a profit. The price of lead is so low that even where small mines are worked by the owners digging and delving themselves they can hardly make labourers' wages. Yet when capital, machinery, and modern appliances are brought into operation, and the work skilfully conducted, money appears to be made by lead mineowners. But it is a rather significant fact that lead mining companies in Derbyshire have not been successful, whilst private enterprise has. One gentleman, or firm, well known and long established, appears to raise something like, if not more than, two-thirds of all the lead ore that is raised in the county, so that not much is left for the many other individuals, firms, and companies engaged in mining operations. Eyam, in particular, appears to have been most unfortunate, one of the largest mines in that locality having been closed a few weeks ago, and has since been followed by another one.

The collieries have been working better of late, the demand for house coal, as is usual at this time of the year, having considerably increased. Still, the open weather has kept it less active than usual, and the miners are not as yet fully employed at the various mines. At the commencement of the quarter vast quantities of house coal were hurried up to the Metropolis by the various lines of railway, so that merchants and dealers were speedily stocked, and as the demand did not keep pace anything equal to the supplies constantly sent, the trade has since quietened down, and during the last week or 10 days many loaded wagon trains have been left at sidings, particularly at Peterborough, and from thence to the Metropolitan termini. The consequence has been that the agents have not realised the prices they would otherwise have done for their principals. The merchants and those selling direct to consumers raised their prices as usual at the commencement of the last quarter of the year fully 1s. per ton, but many of the coalowners did not realise more than 6d. of that amount; some not so much, and others scarcely any at all. This relates to house coal, for scarcely any change has taken place in the value of other kinds. But there is certainly no reason why the London consumer should pay 23s. for a 20cwt. ton of inland coal when the seller only pays something like 8s. or 9s. for 21 cwt.; in fact, the price of coal appears to be trebled between what is paid at the pit and what the consumer has to pay on its reaching his cellar. The railway companies and the merchants must therefore be those who are most benefited, and who take between them the heavy tax imposed upon the consumer. Gas coal has gone off well from several of the leading collieries, but at contract prices.

In Steam Coal the trade is still of a moderate character, a large proportion of what is raised being taken by the railway companies and for iron-making. The consequence is, that it does not realise anything like what it should do, for in some districts it realises as much as the households, and in the summer more. But there is no seaport within easy distance of the central part of Derbyshire, and that, of course, is a great drawback. Small coal only meets with a slow sale, and at prices that cannot leave any profit to the owner; so that the miner is about the only person who is really benefited besides the consumer. Coke has gone off very fairly, but the output is certainly not so large as it should be, considering the quantity that is consumed for iron smelting purposes.

Some branches of the Sheffield trade have continued to improve, and there is every appearance of a better time for the workmen up to the closing for the holidays. The light branches are those that appear to be best off, taken altogether. In table and pocket knives the leading houses are now well employed, and even the houses engaged on secondary and common qualities of hardware are much better off than they were. Edge tools, files, and saws also look rather better, and more is doing in scissors, in which the competition on the part of some of the German makers, who make a good-looking article but lacking quality of material, has told considerably in the past, but is not likely to do so in the future. Sheep-shear manufacturers have done, and are doing, a steady trade, mostly for shipment abroad. In the heavy departments not much change has taken place, but it may be said that there has been a steady production of most kinds of steel. One or two good orders are in hand for Bessemer rails, whilst a good deal of the same material is made for springs, tyres, axles, rods, and for some qualities of cutlery and tools. For the best description of tool and cutlery, however, there has been an increased demand for special descriptions of crucible; whilst for wheels and large castings no decline has taken place. Brown's and Cammell's continue busy on armour-plates, and are likely to continue so for some time to come, seeing that some new vessels are about to be laid down in our own Government yards. In ordinary ship-plates the output has continued moderate, and the same may be said of those rolled for boiler-makers. Some of the engine-works have done fairly well of late, whilst the wagon builders have still plenty to do.

The Coal Trade of South Yorkshire has looked up of late, but there is yet some trouble with respect to the miners; and at one place they have tried to lessen the production by not working when in the mine. But the manager having summoned some of them before the magistrates the others have shown a more tractable disposition.

REPORT FROM LANCASHIRE.

Nov. 6.—There has been a considerable quietening down in the Coal Trade of this district during the past fortnight, and although pits are still being kept on pretty near full time with comparatively very little of the output going into stock there has been an excess of supplies over requirements coming upon the market, which has been sufficient to exert a weakening effect upon prices. The falling off in the demand is, of course, due chiefly to the exceptional mildness of the season, but there is also a continued absence of activity in some of the large coal using branches of industry, which contributes towards restricting requirements, and the general tone of the trade is dull. The leading colliery firms maintain late rates, but to a large extent there has been a giving way upon the October advance, and in some cases, for special sales, prices are being taken quite as low as those ruling in September. At the pit mouth best Wigan Arley is to be got at from 9s. to 9s. 6d.; second qualities, 7s. 6d. to 8s.; Pemberton Four-feet from 7s. to 8s.; common house fire coals, 6s. to 6s. 6d.; steam and forge coals, 5s. 6d. to 6s.; burgys, 4s. 6d. to 5s.; good slack about 4s., and common sorts from 2s. 9d. to 3s. 3d. per ton.

For shipment there is still a fairly good demand, and for delivery at the High Level, Liverpool, or the Garston Docks second house coal are fetching 8s. 6d., and steam coals 7s. 6d. per ton; but there are some inferior qualities to be got at 3d. to 6d. per ton under these prices.

In the Iron Trade of this district the prospects of improvement continue as remote as ever; but the general conviction that prices are not at all likely to get much lower tends, in a certain sense, towards a more confident tone in the market, which to some extent is

being backed up by the firmness recently shown in Scotland and Middlesbrough. Business here, however, continues dull, and that the future is not looked forward to very hopefully is indicated by the fact that, notwithstanding the belief that prices have got as nearly as possible to the lowest probable points, both makers and merchants are in many cases willing to sell for forward delivery at present rates. For local and district brands of pig-iron delivered equal to Manchester quoted prices remain at 41s. to 42s. for Lancashire; 41s. 6d. to 42s. 6d. for Lincolnshire; and 42s. 6d. to 43s. 6d. for Derbyshire, less 2s., but there are some brands of Lincolnshire to be bought at as low as 41s. In outside brands there has been very little doing, buyers not being disposed to follow any upward movement in either Scotch or Middlesbrough iron.

In the Manufactured Iron Trade, although it is only exceptional where makers have any great weight of work ahead, they are in most cases kept well employed with orders from hand to mouth, and prices are maintained at about 5l. 12s. 6d. for good qualities of bars, 6l. to 6l. 2s. 6d. for hoops, and 7l. 2s. 6d. to 7l. 5s. for sheets delivered in the Manchester district. Trade is, however, being a good deal cut up by the keen competition of merchants, and the market is not as firm as it might be.

The condition of the Engineering Trades remains much the same at last reported; in most branches there is a continued falling off in the weight of new work coming forward, but except in the ship-building districts there is no actual depression.

REPORT FROM NORTH AND SOUTH STAFFORDSHIRE.

Nov. 6.—We are yet without any advice of a rise in prices at the collieries on Cannock Chase, although Nov. 1 generally sees such advance. The continuation of summer prices must be attributed to the mildness of the season and the decline in demand for manufacturing coal, now that the Staffordshire pits are at work again. Furnace and forge coal mined in the Black Country is in over-abundant supply and prices are without strength. The former is 9s. to 10s. and the latter 6s. to 6s. 6d. at the pits. Sales of pig-iron continue limited. Occasional lots of 500 to 1000 and 2000 tons are being negotiated, but vendors have to coax consumers on the score of price. Prices of all-mines greatly vary, and between qualities which at one time were considered of almost equal merit, there is now as wide a margin as 7s. 6d. per ton. Thus hot-blast qualities vary from 65s. to 67s. 6d. per ton. Competition from hematites at 55s. to 56s. is severe. The finished ironworks are steadily on, but without briskness in other than the sheet mills. Singles are 7l. and upwards, doubles 7l. 10s., tank plates 7l.; other qualities of plates 7l. 10s. to 8l., and boiler plates 8l. 10s. to 9l.

The Earl of Dudley has just issued circulars announcing a reduction in limestone of 3d. per ton. Henceforth grey crystalline, for the blast-furnace, will be 4s. per ton; and blue, or thick bed, for agricultural and masonry purposes, 3s. 9d.

The colliers in the district are this week occupying themselves by holding meetings to advocate the importance of unity, and to urge upon the men the desirability of joining the Midland Counties Amalgamated Trades and Labour Association. The efforts of the Strike Committee to get the men to come out again for an advance have proved futile. Meanwhile this committee are still bent upon doing their best to engender bad feeling. They have this week resolved, "That this meeting strongly condemns the action of the masters in refusing to meet the representatives of the men, and earnestly requests all men not to settle any disputes unless some official is present."

The Mines Drainage Commissioners held a monthly meeting in Wolverhampton, on Wednesday. In reply to Mr. Richard Williams' query whether as the result of the lowering of the water in the Tipton district any new collieries were being worked, which had before been submerged, the Chairman said that inasmuch as the colliers' strike had been over for only about 14 days it was as yet too early to ascertain the full effect of the pumping. Replying to Mr. D. Groucutt, the Chairman explained that they had not yet begun to pump at Bradley.

The annual election of the Mines Drainage Commissioners has passed without any contest. Mr. George Pearson, of Stourbridge, retires, and Mr. F. Grazebrook, of Messrs. M. and W. Grazebrook, of Netherton, takes his place. All the other retiring members have been re-elected.

TRADE OF THE TYNE AND WEAR.

Nov. 6.—The Coal Trade on the whole is in a healthy state; there is still a good demand for best steam coal, and a fair enquiry for the Lower Baltic, and during next month it is expected that there will be demands for East India. Gas coal of course moves off very freely, and there is an improved demand for house coal. Should the winter prove to be severe there will be increased demand for this coal, and improved rates may be expected. The price in London has already improved considerably and the usual advance of the local merchants here on Nov. 1 has also been made. There is no change in the value of coke, but it is cheering to notice that the stocks do not increase materially; the reduced make resorted to some time ago has nearly brought the make down to the demand.

The Pig-iron Trade has been steady during the week. Shipments have continued good, and the tone of trade certainly improved. Ironmasters are, consequently, very firm in their prices, 36s. 3d. for No. 3, and 34s. No. 4 forge must now be paid for prompt delivery. There has been more animation in the steel trade, and in the manufactured iron trade, directly attributable to the slight revival in the ship-building trade. There are people who indulge in gloomy views about the winter trade; but from all that we can learn here we are inclined to believe that a steady revival of trade will occur, and has now set in in all branches of trade. The manufacture of these sheets and bars is to be commenced at the Richmond Works, Stockton. It was commenced at Redheugh, Gateshead, a few years ago, where it has been very successful. The Wellington Foundry, on the Tees, which has been idle for some years, is now again to be put in operation. The orders for steel vessels lately received will assist the new plate industry. The shipments of pig-iron for the month of October are upwards of 82,500 tons. The stock of Messrs. Connal still steadily declines. The coal and coke trades at Middlesbrough show no change of consequence. The shipping trade, on the whole, is improving; there is increased employment for steamers, and freights are better.

IMPROVED SYSTEMS OF COKE-MAKING AND SAVING THE BYE-PRODUCTS.—New systems of coke-making have now been partially adopted for a considerable time in Durham, but they have not as yet made much progress. No doubt the dull state of trade and the low price of minerals has had the effect of deterring the coke-masters from expending capital on new plant; but other causes have also been at work, as some opposition has been met with in high quarters. At the meeting of the Iron and Steel Institute, at Middlesbrough, in 1883, this question was brought prominently before the meeting, able papers on the Simon-Carvès system and the Jamieson processes having been read and very fully discussed by members. At that time a number of ovens on the Simon-Carvès system had been got to work, and it is clear that Messrs. Pense have found them profitable, as since that time they have largely increased their plant of coke ovens on this system. There is no doubt this is the most effective system yet tried for securing the bye-products and utilising the gas from the ovens. It is, however, expensive, each oven costing about 200l., about four times the ordinary cost of the beehive oven at 50l. The Jamieson process, less elaborate and less costly, has been adopted to some extent. At the Iron and Steel Institute meeting, at Chester, a short time ago, two able papers were also read, one by Mr. Watson Smith, of the Owen College, Manchester, and one by Dr. C. Otto, Germany, "On the Hoffman Coke Ovens," and the subject was discussed at some length. The Jamieson coking process has received a certificate of distinguished merit at the hands of the jury of the International Health Exhibition—a gold medal in the class in which it is entered as a manufacturing process, and a silver medal in addition in another class as a gas-producing process. Many difficulties have been met with in working it, but it has now been so far perfected that it can be applied with entire confidence for the manufacture of

metallurgic coke, and also for the utilisation of the small coal now a drug on the market.

The Jamieson ovens of Messrs. Bell Brothers, at Page Bank, stopped owing to the fire some time ago, have again been started with a further number of ovens. Several of those ovens are at work at the Weardale Iron and Coal Company's Works, and many other installations. A range of those ovens, 54 in number, have also been started at the Earl of Durham's Works, Fence Houses. Coke manufacture commenced at a very early date in Durham. It was found that some of the coal seams in South and West Durham were extremely suitable for the manufacture of this article. At first this article was used for maltings and brewers, and when the railways were developed a great market was found for it for locomotives. But it was found afterwards that some raw coal was very suitable for the working of locomotives, and this market was lost to a very great extent.

The development of the iron trade, however, again afforded an outlet for coke, and until lately the Cleveland iron furnaces and those on the West Coast in Cumberland afforded full employment for the cokeworks in this district; the late depression in the iron trade, however, consequent on the temporary collapse of the ship-building trade has seriously affected the trade, which is in a very quiet state. Improvements in the mode of manufacture are, therefore, of great importance; and, allowing for all obstructions, they must ultimately, to a great extent, be adopted. It is, we think, evident that, taking the best coal to be found for coke-making, valuable bye-products can be extracted by the new process, which will well repay the outlay of additional capital; besides which, it has been found that coal formerly considered quite unsuitable for coke-making, can be converted into fair coke by the new processes. At some experiments made at the Felling Chemical Works it was found that even the small coal from the Northumberland coal field could be converted into fair coke by the Jamieson process; and this is very important, as this coal in its raw state is almost worthless at the present moment, and an enormous quantity has been wasted in former times.

REPORT FROM NORTH WALES, SALOP, AND CARDIGAN.

Nov. 6.—Referring to my remarks last week, I understand that one considerable owner is already agreeing to a lease or take-note in which the royalty is fixed at 1-15th. This is well, as far as it goes; but it does not go far enough. Why should not the landowner be content with a proportion of the profits actually made?

It is next to impossible for English mining to compete with foreign mining, if it be handicapped with burdens from which foreign mines are free. There is a great demand for slates in Carnarvonshire, especially for the smaller sizes—16 by 10 downwards. The stocks of these sizes are cleared off, and the supply is at present hardly equal to the demand. An arrangement is being made between the principal slate quarry owners, by which the underselling of each other, which has prevailed for some time, will be done away with. But, perhaps, the best cure for all such practices is an increased demand.

Application is to be made in the coming session of Parliament for powers to continue the North Wales Narrow-Gauge Railway from Dinas Junction, its present terminus, by the London and North-Western Railway, to Carnarvon. The new line will follow in part the route of the original tramroad to the south side of the Slate port, and a bridge is to be constructed over the harbour to the town side. Thus the slates from the Moel Tryfaen, Bettws Garon, and Rhyd-ddu Quarries will be brought to the proposed new quay on the south side of the port without transhipment. It is also proposed to extend the line down the coast to Dinas Heulle, where a new watering place is contemplated. The whole scheme was unanimously approved by the Carnarvon Town Council yesterday.

Another important work in contemplation is that of the River Dee navigation, by which it is proposed, by means of a lock across the river above Connah's Quay, to make the river right up to Chester one deep, safe dock. The smelting, chemical, and other works that line the left bank of the estuary of the Dee are well employed.

A rather important colliery project is announced, which is that of sinking to the deep coal measures near the village of St. Martin's, on the east side of the North Wales coalfield. A strong company is being formed for this purpose. For a length of nearly 10 miles on this side of the coalfield there are two coal seams which lie high up in the permian, and which have been worked for many years. These seams lie about 300 yards above the top of the ordinary coal measures.

It will be remembered by some of my readers that 11 years ago an attempt was made by the then Ifon Rhyn Collieries Company to sink to the deep coals, and considerable and, as far as it went, satisfactory progress was made until the works were stopped for want of means. There is no doubt that on this side lies the North Wales coal field of the future. The coal trade is fairly brisk. All the collieries are working full time, and the men are working steadily. Considerable activity prevails in the foundries, engineering, and machine shops, while the stone and lime quarries and the brick and terra-cotta works are well employed. The Cambrian Railway Company have partly completed the new pier arrangements at Aberdovey, and the company formed some time ago to extend the trade of the port have just issued a satisfactory report. It is said that an arrangement is in progress between the Cambrian and some other railways, which, it is hoped, will be mutually beneficial.

TRADE IN SOUTH WALES.

Nov. 6.—The Steam Coal Trade of the principal ports seems to have fallen into a quiet groove for a time. The usual autumn contracts will soon be made, and then the business will probably again become active. The amount sent away last week from Cardiff was 112,416 tons foreign and about 20,000 coastwise, with 3320 tons patent fuel; Newport, 23,029 tons foreign and 21,223 coastwise; Swansea, 15,608 tons foreign and about 13,000 coastwise, with 3052 tons patent fuel. Good colliery-scrubbed steam coal is quoted firm at from 10s. to 11s., and house coal at from 8s. 9d. to 9s. 3d.

The Ynysfio Colliery, which has been stopped for some months, was reopened on Monday morning. At New Tredegar the Elliot Pit has been sunk to the depth of 400 yards, and the whole work will be completed in about two months. The Abercanaid Pit, in the Merthyr Valley, has been restarted, and coal was raised on Oct. 31. This pit is the property of the Plymouth Company. The Mynydd-maio Colliery, near Caspilly, the property of Messrs. Deddoe, has also been restarted.

Notices to terminate contracts in the Iron and Steel Trades, which will affect about 16,000 persons, have just been given. This makes the outlook extremely gloomy. It is expected that some portion of the Cyfarthfa Works will be kept going.

The amount of iron sent away last week from Cardiff was 3320 tons, while Newport exported 2644. Iron ore has arrived at Cardiff from Bilbao to the extent of 5059 tons, and 808 from other places; Newport received 6750 tons from Bilbao. Prices are very low, transactions being effected at 10s. 9d. in some cases.

Overproduction in the Tin-plate Trade has brought about the old result. Good IC cokes have been sold at 14s. 3d., and in some cases 14s. 6d. There is a talk of closing some of the works, which ought never to have been reopened.

AN ENORMOUS ROPE.—There is now being manufactured at the works of Sir George Elliot and Company, West Bute Docks, Cardiff, a rope 2300 fms. long, weighing over 24 tons; 95,000 fathoms of wire and 2300 fms. of finest Manila rope has been used in making the rope. The Midland Railway Company will have to provide five of their largest wagons to coil the rope upon for conveyance to Glasgow, where it is to be used.

Died.—At San Francisco, California, aged 41 years, Mr. JOHN JEWELL (second son of the late Joseph Jewell, mining engineer, of Redruth). The deceased was engaged on the Pacific Coast for over 20 years as a civil and mining engineer, was a man of much practical knowledge, of strict integrity, and was much and very deservedly esteemed.

SHOT-FIRING IN MINES.

A large deputation of colliery proprietors and workmen from the South Wales district waited upon Sir William Harcourt, the Home Secretary, on Tuesday, for the purpose of asking him to withdraw the rule recently made as to the firing of shots in coal mines. The deputation was introduced by Lord Aberdare, and among others present there were—Sir J. J. Jenkins, M.P., Sir H. Hussey Vivian, M.P., Sir George Elliot, M.P., Mr. C. R. M. Talbot, M.P., Mr. David Davies, M.P., Mr. Edward Waugh, M.P., Mr. Henry Richards, M.P., Mr. J. A. Rolis, M.P.; Mr. Dillwyn, M.P.; Messrs. A. Hood, Edward Jones, Rees Jones, A. Kirkman, E. M. Hann, Bates, J. T. Bailey, R. Jordan, Simons, and D. H. Daniels.

In introducing the deputation, Lord ABERDARE said they represented to the fullest extent the mining industry of South Wales, and not only was the colliery proprietor there represented, but also the miners themselves. He should like to point out at once that there was perfect unanimity between the owners and the workmen with regard to the question. He would like to say in the first place that they were anxious to express their high appreciation of the efforts of Sir William Harcourt exerted for their benefit. Never had Her Majesty's Home Secretary looked better after the interests of the miners as regards the safety of their lives than he had done. They felt that in coming there to ask him to reconsider the rule lately proposed that whenever shots were fired the mine should be cleared of men, Sir William must give them credit for desiring to make the danger attending the getting of coal as little as possible. They could not make the lives of the miners absolutely secure; that was an impossibility. What they had to do was to endeavour to make life as secure as possible without causing great injury to the trade. It was their firm conviction that the influence of this new rule would be to cause wholesale suffering and distress. They considered that the rules and regulations in force prior to the issue of this new rule were sufficient where properly observed to protect human life. They were also of opinion that those rules were in a very large majority of instances well observed, and it was very hard that because of a few who were grossly careless as to the working of their mines, the majority should have forced upon them a regulation which was felt to be injurious. He (Lord Aberdare) doubted if there had been a single accident resulting in loss of life from blasting in the South Wales district, at any rate not for many years past. He then read a letter from a very large colliery proprietor in the district (Mr. Nixon) which stated that he owned three mines, where there were respectively 667, 755, and 1132 men employed. They were the deepest mines in the district; millions of tons of coal had been raised, and tens of thousands of shots fired, and yet during the last 27 years there had not been a single case of accident through the use of explosives. In carrying out their work in the past, Lord Aberdare continued, they had been able to do so with safety, acting upon the rules in force prior to the one they had met to talk about. When accidents diminished to such an extent surely it speaks well for the existing rules. Explosives are absolutely necessary in the working of coal mines. Sir George Elliot has in his collieries minimised the use of explosives, yet his agents will tell you that they are obliged to use explosives occasionally, not only for cutting through faults, but for enlarging airways. One effect of this rule would be that the cost of mining would be greatly increased; in fact, it would prohibit the working of thin veins of coal altogether. This would result in the closing of very many collieries, and then we should have loss of life in another direction to face. The policy seemed to be this—that the worst men's collieries were to be put on the same footing as those of the best men. It seemed hard that the whole district should be exposed to injury and loss, because a few did not observe the rules in force. He felt, however, that his information was but secondhand, and he would leave it further for men who could tell the effect this rule would have upon their own collieries. They would, in enforcing this rule, throw vast numbers of men out of employment against their wish. The men preferred to work under the rules previously in force rather than be reduced to absolute want.

Having been requested to represent the owners in this matter, Mr. A. HOOD said that in doing so he would endeavour not to go over the ground already covered by Lord Aberdare. He had been all his life working in connection with coal mines, and he could fully endorse all that had been said by Lord Aberdare. He, too, thought that the result of this rule would be the stopping of many mines altogether. He did not quite understand the meaning of the word "colliery" in the rule; did the word mean a mine, or did it merely mean a panel of a mine? In explanation, Sir WILLIAM HARCOURT said that it was no use confining the rule to one spot. What they intended was that firing should not take place while the workmen were in the mine, or in any part connected with the spot where the explosive was used; in point of fact they intended that it should take place between the shifts, and that only those absolutely necessary for the operation should be in the mine. Mr. A. HOOD thanked Sir William for his explanation. He said that being the case, the whole underground workings having to be cleared, it would involve the taking of the men from more than one pit, as several pits were in connection with each other. It was impossible to conduct operations without firing, and the rule, he considered, was practically impossible. He considered that the present rules were quite sufficient for the protection of life. In their own interest they would not fire more than was necessary; they did not want their mines to be destroyed by blasting. It was true that if the rules existing were not observed disaster would follow. He considered that the miner in a fiery pit had the lives of all his fellow-miners in his hand, and that if they were to prevent any risk at all they must prevent men going down at all. It was, he thought, a bad thing to impose such a rule on such an industry. They represented 60,000 workmen, and were very hearty in wishing Sir William Harcourt to reconsider the matter. He would point out again that the owners and workmen were unanimous in this matter.

Sir WILLIAM HARCOURT said that they had not met there in any hostile spirit, and it would be convenient now if he should hear some one on behalf of the workmen, and after that he would express his views on the subject, and then they might be commented upon by those present. Mr. WILLIAM ABRAHAM then made a few remarks, in the course of which he said that they very much regretted in coming there to have an appearance of opposing Sir William Harcourt in his exercise of tender humanity, still so convinced were they that the remedy was worse than the evil that they must appear against it. The effect of the rule imposed upon them would be the closing of many pits, and the throwing hundreds out of employment, and they believed that the rule was impracticable.

After expressing his obligation to the deputation for the kind manner in which the subject had been placed before him, Sir WILLIAM HARCOURT assured them that he had no object more at heart than the welfare of the mining industry. He confessed that his inexperience was much greater than that of Lord Aberdare. He reminded them of the grievous responsibility which rested upon him by reason of the position he occupied. He felt this when he was called upon now and again to determine on the life of single individuals in connection with the criminal laws, and how much greater was his responsibility when the lives of hundreds of innocent beings were at stake. He could, in his endeavours to preserve human life, only act on the best information he could derive. Nobody held more than he did that it was inadvisable to interfere with private enterprise. They could not rely solely on the self-interests of the men and owners. If they could have relied on that there would have been no need to have passed the Mines Regulation Act. But the men had come to him repeatedly, because they could not protect themselves. Let them put themselves in opposite positions in considering this question. He would try to place himself in their position, and he asked them to look at it from his point of view. Now, how did the matter arise? It was in consequence of a serious explosion which had occurred at the Penygraig Colliery. But they could not act on that single case. When he took up the newspaper in the morning, and saw that an explosion had occurred at a mine, the question he asked himself was, Is there anything I can or ought to have done to prevent such accidents? Therefore, he thought it his duty to enquire what was the practice with regard to the use of explosives in mines. Now they had very able men well conversant with the matter—the Inspectors of

Mines—and one of the first things he did was to send a circular round to these men to know what was the practice in their districts. The subject was not new to him—he had heard of the danger of shot-firing over and over again. Take, now, the district of West Lancashire. Mr. Hall, the Inspector there, says that, owing to the nature of the coal seams, shot-firing was more necessary there than it was in the South Wales district. Well, Mr. Hall reported to him that two of the largest colliery companies in Lancashire do not allow more than the necessary number of men in their mines during the firing of shots. They found that it was quite possible to fire 180 shots between the shifts. What he had to say to them was, Why could not that be done in South Wales?

The number of shots required to be fired in the South Wales district was considerably less than in Lancashire. That was, he thought, the practical point. Here in Lancashire where 180 shots were fired this rule had been voluntarily adopted; why, then, could it not be adopted in South Wales? Sir William Harcourt then read reports received from other mining districts. There was undoubtedly great danger in shot-firing in firey mines, and that danger did not extend only to panels, but to all parts connected with the point of firing. Now that firing could be done between the shifts. They had to take every precaution for safety of life. They had to strike a balance between the evils. Was the firing of shots with a mine full of men a risk they were obliged to run in order not to destroy the trade? Now, the evidence he had showed that it was possible to avoid that risk without causing mischievous injury to the trade. The point really was, Can it be done, or can it not be done? He was of opinion that it could be done, but they did not wish to enforce a rule in any arbitrary manner, but to have a fair investigation and arrive at a fair decision. It was not enough that he should have formed an opinion on the subject; the public had to be satisfied, and he thought that this would be best attained if the matter was fully debated before arbitrators. They would appoint an arbitrator, and he would also, impartial men who would take the evidence of the several districts. He would then feel that he had discharged his responsibility, and they would feel that they had had a fair hearing. If it was found that the rule was unnecessary then it would be withdrawn, if, on the other hand, it was found necessary it would remain in force; at any rate, the matter would be thoroughly sifted.

Referring to the reports of the Inspectors which had been read, Sir HUSSEY VIVIAN said that he did not gather that such a rule as the one under discussion was in force in the districts.—Sir WILLIAM HARCOURT, in reply, said the rule had voluntarily been adopted in some collieries; but it was more necessary to have it made compulsory.—Sir H. HUSSEY VIVIAN then went on to say that there was a very great output in the South Wales district, and an enormous amount of shot-firing occurred, and yet there were very few accidents. Did that not indicate that the existing rules were sufficient? Speaking of the presence of gas in mines, he said he did not think the men were guilty of not reporting when gas was in the mines. He did not think that Sir William Harcourt had quite grasped the extent of area influenced by this special rule. The general rule in the Statute referred to panels, districts of the mine self-contained, and to all workings connected therewith. As several mines communicated with each other that area would be very great, and under the special rules the men would have to be removed from the whole every time a shot was fired.—Sir WILLIAM HARCOURT explained that the question whether the special rule should require the removal of the men from the whole mine or only from the panel where the shot was to be fired might be regarded as a separate point which might be subsequently considered.

Sir H. HUSSEY VIVIAN said he was relieved to hear that the Home Secretary was prepared to consider the matter in a more limited sense. He pointed out that shots were used for two purposes—either for blowing down the roof or for working the coal itself. If the use of powder was limited a serious result would follow in the increase of accidents. It was necessary to have large bodies of air conveyed to the workings, and they could not enlarge the air-ways without blasting. If the gases are sufficiently diluted with air they will not explode. They must get plenty of air then; but if such restrictions were placed upon blasting one of the best means of doing this was taken away. He pointed out also that one boring followed upon another, and that it was necessary to fire four shots in every shift; thus it would be quite impracticable to clear the mine every time the shot was fired. They represented 60,000 miners, and if they thought the present practice dangerous they would not be there to-day. If blasting were not used in the working the coal it would be necessary to the men to work under the coal, and more men would be killed through being crushed in that way than lost their lives through blasting. With regard to arbitration, he had never found it very satisfactory. A court of law for him, and not arbitration in any dispute. What they really wanted was more careful inspection of the mines.

The utility of the discussion they had had was fully recognised by Sir WILLIAM HARCOURT, who remarked that one could never meet with practical men, and converse in the way they had done without learning something. He could not further discuss the matter, but he thought it should be fully and fairly discussed. Whether the necessary amount of shot-firing could not be done in the interval between the shifts was the point, and he had only the reports of the Inspectors. It was a point they all required settled, and the sooner they took the means to do so the better. It was suggested by Sir H. HUSSEY VIVIAN that instead of applying to umpires Sir William Harcourt would exercise his own sound common sense, and reconsider the rule, but Sir WILLIAM HARCOURT remarked that the public must be satisfied, and not only he, but everybody must know the evidence on both sides, and, therefore, it was necessary that the matter should be publicly discussed. After a few remarks from Sir GEORGE ELLIOT, Lord ABERDARE read a resolution passed at a meeting of owners and miners that morning to the effect that the new rule was unnecessary and injurious to the mining industry, and the deputation having thanked Sir William Harcourt for receiving them withdrew.

CRANSTON ROCK-DRILL AND AIR COMPRESSING MACHINERY.—These machines, which have now for so many years done very excellent work in mines, quarries, tunnels, railway cuttings, and sinking pits, continue to make further excellent progress. The drill has been regularly employed at the West Moor Limestone Quarries, county Durham, during the last 10 years; has driven over 7000 linear feet of tunnel at the Eberhardt Mines, Nevada; over 1800 ft. at Cuiaba Tunnel, Brazil; they are extensively employed in the Taquemir Quarries, Belgium; and at a great many other places. The Radcliff Coal Company (Limited), at Amble Harbour, are working Cranston's submarine boring machinery, by which they already have drilled over 12,000 ft. of 3-in. diameter holes, all under water, and an extensive installation of rock-drill machinery has again recently been shipped to South America. The principal features of this machinery is its extreme simplicity in construction, durability, power, and efficiency, and is comparatively inexpensive, compared with the rapid and economical work which has been, and is being, done at the present time with this excellent machinery.

SOUTH LANCASHIRE AND CHESHIRE COALOWNERS' ASSOCIATION.—The annual meeting of members was held at the Queen's Hotel, Manchester, on Tuesday. There was a large attendance of the colliery proprietors of the district, and the retiring President, Mr. Abraham Burrows (Fletcher, Burrows, and Co.) occupied the chair. The annual report of the President, reviewing the subjects which had occupied the attention of the Association during the past year, was read, and comprised several interesting details with reference to matters brought before the Association, including questions with regard to railways in which the colliery proprietors' interests were concerned, the Liverpool Docks, local railway Acts, and Parliamentary and other matters of interest to the trade. The accounts for the past year were also presented and adopted. The annual vote of thanks having been passed to the retiring President for his services during the past 12 months, Mr. W. S. Barrett, of Liverpool, was unanimously elected President for the ensuing year. The proceedings then terminated with the annual dinner at the hotel.

Mr. Andrew Stuart has retired from the Board of the Gold Coast Mining Company (Limited).

PROGRESS OF COMMERCE.

The Trade Returns, issued yesterday afternoon, for the month of October last show no improvement upon those of the past months. Compared with the corresponding month of last year, the exports of British and Irish produce, with a total of 20,414,000Z., exhibit a decrease of 3½ per cent., while the imports were 31,097,000Z., or a decrease of 13½ per cent. The latter, considering that the falling off is mainly due to good supplies, is not to be regretted. The re-shipments for the month amounted to 4,758,500Z.—a reduction of 30 per cent.

The totals for the 10 months, compared with the corresponding 10 months of last year, show less unfavourably. The exports were 197,383,000Z., or 1½ per cent. less, and the imports 325,958,000Z., or 2½ per cent. The re-shipments, at the same time, were valued at 45,157,000Z., or a decrease of 2½ per cent. The latter show an increase principally in hides and tea, with a large falling off in wool. The exports for the same period show an increase in raw materials and chemicals, but a decrease in metals and most other articles. As regards the imports, those manufactured articles and chemicals show the only augmentation of importance. For October last the exports have increased as regards food products, raw materials, and chemicals, but have declined more or less as regards metals, yarns, and machinery. Iron shows a large falling off, and hardware, copper, and lead, but tin a slight increase.

The imports for the month exhibit a reduction of important dimensions in cereal produce and raw materials for sundry manufactures. Raw materials for textile manufacture, however, have increased, together with metals. Of wheat the arrivals were 40 per cent. less than last year, and the value 29½ per cent. less. The smaller shipments were mainly from the United States, India, Russia, &c.; but there was a considerable increase in the receipts from Australia and Canada. Flour and maize came also much less freely to hand. As regards metals, copper ore arrived on a larger scale, the quantity being 27½ per cent. greater than that of last year, and the value 37½ per cent. Tin decreased 16 per cent. in quantity and 8 per cent. in value. Lead also declined. The shipment of foreign and Colonial copper increased, and that of tin was largely augmented.

ASIA MINOR MINING COMPANY.—In conformity with the instructions of the company Mr. George Green and Captain Roskilly have visited and made a prolonged stay at their mines at Lydjessy, Asia Minor, and have issued a report, an abstract of which is submitted. Mr. Green reports that on arriving at the mines he found the water supply was gradually decreasing; therefore, he set to work to push forward as rapidly as possible the erection of the steam-engine which had arrived there, and succeeded in getting it into working order before the water had fallen off to such an extent as to interfere with the dressing department dealing with the output of the mines. The engine and boilers do their work well, and they will now be able to keep up the production of dressed ore during the dry season until the frost sets in. After giving details of the dressing machinery he says—"I found the whole of the machinery in good repair, and working remarkably smoothly, the gilling and attention to the solidity of the bearings being all that could be desired; the action of the jiggers was most carefully adjusted, and the separation of the silver-lead ore from its stanniferous mixture most satisfactory, both with the jiggers and buddles, and much credit is due to those in charge. The difficulty of dressing the slimes up to the requisite standard of produce has been satisfactorily overcome, and the slimes come very nearly to an equal produce with the jigger work. There was, the report continues, still to be erected picking-tables, a new stone-breaker, and turbine; but, though this work was in progress, it would not be available during the present dry season. When the hand-picking is got to work much waste rock that now passes through the dressing machinery will be previously rejected. The new canals for affording an increased supply of water would save a large fuel cost. The canal for supplying the turbine being a rather large job, he had invited estimates before giving the order. The transport to Kerassunde was low, and there appeared little hope of lessening it; but the store and shipping expenses at Kerassunde might be reduced, as also the commission to those procuring carriers. The production of ore could be increased and reduced in cost by fair driving on the course of the lode, and the construction of winzes and rises. If the levels are in future to be driven on the hard rock of the lode, rock-boring machinery could be used to great advantage. He estimates the cost of engine-power, air compressors and receivers, air-pipes, rock-drills for driving the main adit, and Arthur levels, which are sufficient to begin with, approximately at from 1200Z. to 1400Z. placed on the mine. Smelting should not be entertained until satisfactory results are obtained from the present mining operations. When this is done the subject should be very carefully considered. There was no scarcity of wood for fuel, but the quality was inferior, and the cost high. In conclusion, he says that nothing can be more certain than if the exploration of a mine is discontinued, or is improperly done, the supply of mineral will diminish, and ultimately cease altogether, and this assuredly will be the case at Lydjessy unless the work is at once resumed, and the drivages and communications of the levels carried out in the well known mining way. Mr. Roskilly, whose attention was devoted more particularly to the underground workings, says in his report, after detailing the work done in the different levels, considering the large extent of unwrought ground standing below the Savalan level, he advised pushing forward the driving of the main adit, Arthur and Hamburg levels, on the course of the lode, also that the lode standing by the side of the portion already driven in those, and the Petri levels should be more thoroughly explored, they would then not only prove the lode in the course of the driving, but come under the rich ground gone down below the Savalan and Petri levels, from which large quantities of ore had been mined. He had no hesitation in saying that their property was a most valuable one, and that with a vigorous and practical development, conducted with reasonable care and economy, it would undoubtedly prove a remunerative one to the shareholders.

OSCAR GOLD.—A correspondent who was present when the machinery was lately set to work, writes as follows:—"Oscar shaft has been sunk 16 fms. from surface, through a well-defined strong lode of quartz, chlorite slate and sandstone gabro, impregnated with iron pyrites, telluride of bismuth, sundry spots of copper, with gold, which has varied from 2 dwts. to 10 ozs. per ton of 20 cwt. In fact, the richness of this lode has spread its wings far and wide, and is now the general topic of conversation in every mining district both local and foreign: 12½ fms. from surface two levels have been started and driven each 6 fms. In the level going north-east some splendid stones, wherein is visible gold, have been found, while the results obtained from all the points in operation by panning and assaying have been most satisfactory. Samples from this level were taken, crushed, and washed in the presence of the visitors, and found to be extremely rich. Lately visible gold has not been found in the shaft, or in the level going south-west; but the gold appears to be more evenly distributed throughout the matrix of the lode. The shaft, which is now well fitted with a double skip-road and good ladder-way, is being sunk by six men, while 16 more are employed driving levels, stoping, &c., not including the trammers and those engaged in hauling and conveying the auriferous stuff to the mills. Every effort is being made to open this lode with all possible speed, and there is no doubt whatever but that the 20 stamps already erected will have to be increased to 40 to treat the stuff which this mine alone can produce. This company possesses upwards of 15 claims, but as yet have only worked a little or a few of them. Gold, both visible and otherwise, has been found—in fact, some of the samples were very rich, and as several of these claims can be placed at par with Oscar there can be no doubt as to the future of this company. Over 1000 claims have been taken on the island, and a few companies have been floated to work on some of them; and we hear that the so-called Hangesund claims have been sold to an English company for 50,000Z. but the rumour requires confirmation.

MINING PROGRESS IN SWEDEN AND NORWAY.

Considerable progress has been made in the development of the mining industry of these countries of late. While the fish, wood, and ice trades are the staple industries it cannot be denied that mining plays a very important part in the trade of these countries. The following interesting particulars are taken from a report by Consul-General Michell, of Christiania:—Concerning silver mines the report says, the Kongsberg silver mines have in the year 1883 produced about 6250 kilos of silver. The production in the year 1882 was about 5850 kilos; the price of silver, which in the preceding years was about 136 kroner per kilo, has in the course of the last year been a little lower—about 133 kroner per kilo. Of the mines at Kongsberg the Armen Mine had the smallest production. In the King's Mine there were better results at different depths. The very good find which was made some years ago at this mine has continued without change during the last year. The good finds in Hans Sechsen Mine have, although they have somewhat decreased, given a very good result. The find of ore in Gottes Hülfe has, on the other hand, been very irregular and unreliable. Of the silver mines at Vefsen, the Svenningdal Mining Company, which is the oldest one, is building a very expensive washing-work for the great quantity of poor ore which has been found. Besides the Svenningdal Mining Company, the Jacob Knutsen Mining Company and the Victoria Company have worked with great activity, and many other companies have been established to work the parallel veins. On Hitteröen Island the search after silver has been very extensive, and more than 500 claims were announced in the course of last year. The only two mines which have been worked are Mörkedalen and Roven. The latter has just been supplied with a washing-machine. Although the veins have not been examined sufficiently, there is every reason to believe that the working of these mines will, in time, give a good return. Of the Hatfjeldalen Mines, which a few years ago were much spoken of as very promising, nothing more has been heard. A discovery of gold has been made at Bremnes, on Bömmel Island. Working for copper had commenced at this place in a vein of quartz, when gold was found at a depth of 7 metres down in the quartz. The precious metal was also found in the limestone, and is said to contain 93 per cent., but the mine is too new to enable us to speak of its future with any certainty. It is being worked by the Oscar Gold Mining Company with English capital.

Of copper mines the report says the prospects of the Stordal Mine, the most important mine at Kongsberg, have not improved in the last year; while, on the other hand, the Mug Mine has improved a great deal. The old Solskin Mine has again commenced working. The smelting of copper ore has this year entirely occupied the Rörörs smelting house. The Vignæs Copper Mine has continued to give very good results, and a depth of 360 metres has been reached. The same company has commenced mining at Alfsvaag on Bömmel Island as well as on Hugler Island; the ore found on the latter island is smelted at Vignæs. The Aamdal Copper Mine, belonging to an English Company, the Bratsberg Copper Mining Company, has established a turbine of 200-horse power for boring in the Holfung Mine. The Bøilestad Copper Mine was not worked during the last year, but it is reported that a new company will recommence the business. A vein of copper ore has during the last year been discovered at Svartdal in Telemarken.

Nickel Works.—The Evje and Bamble Nickel Works have been in full activity, although the price of nickel has fallen, as a result of the large production in New Caledonia. At the Ringerike Nickel Works no mining has been pursued during the last year. Senjen Mine has reduced its production for want of ore. With regard to apatite, the French mining company at Bamble has produced about 12,000 tons of first-rate ore. At the industrial exhibition at Christiania last year the Kongsberg silver works showed a magnificent and instructive collection.

THE BOURNEMOUTH EXPLOSION.—The report embodying the result of Col. V. D. Majendie's enquiry into the cause of the recent fatal explosion which occurred on board a pleasure steamer off Bournemouth has just been published. It will be remembered that a display of fireworks was to take place near the pier on the evening of Aug. 20, and in order that persons might view it in an agreeable manner it was arranged the steam vessel Bournemouth should embark passengers at 6d. a head and lie off the pier. In order to please his passengers the captain burnt a number of blue lights, which he obtained from the ship magazine, and when these were exhausted he took "socket distress signals" also. These he endeavoured to light with a fuse, but not succeeding they were removed from the socket and one of them having become ignited suddenly went off, exploding with considerable force and causing such injuries to one man that he subsequently died. Had the vesuvius acted while the signal was in the socket possibly no harm would have resulted, as the powder charge would have shot the signal a safe distance into the air before the explosion occurred. Col. Majendie says the captain cannot be acquitted of the most extraordinary and inexcusable rashness. His explanation rather carries condemnation on the face of it, for this explanation is based upon the fact that he was ignorant of the nature and mode of action of these signals. Surely it is reasonable to suggest that the master of a vessel who neglects to inform himself with regard to the use of articles upon which the safety of a vessel may depend at a most critical moment fails to discharge one of the duties which belong to his position. He concludes his report by saying that the attention of the Board of Trade should be directed to the following points:—1. The ignorance of the master in regard to the nature and proper use of the signals. 2. The use for amusement and pyrotechnic display of signals forming part of the vessel's equipment; and—3. The slackness prevailing with regard to the keeping of the explosives on board.

CANADIAN RAILWAY.—A new railway is about to be commenced in Canada, which will help to open up the extensive coal areas of the Medicine Hat district. Hitherto the mines have had to depend upon water carriage, and were altogether inaccessible in winter time. The coal areas are considered almost inexhaustible, and the building of the line will, it is said, ensure a continual and abundant supply of fuel for the north-west. It is also probable that the line which will extend from Medicine Hat to Belly River, a distance of 107 miles, will be carried on to Fort McLeod to secure the traffic of that fine grazing district.

NORTH MEXICAN SILVER MINING COMPANY.—It will be recollected that when the prospectus of this company was issued, last spring, the directors wisely provided that if after three months' working they should not be satisfied with the results, they might return the property to the vendor. The managing director of the company (Mr. Anthony Palbrook) has accordingly visited the mines, and seen the result of the operations. In his examinations, he was assisted by Mr. Ottaher Hofmann, of San Francisco, who, it will be recollected, was referred to by Mr. Stetefeldt, in his well known paper "On the Russell process of Lixivation as the Pioneer of successful Lixivation in Mexico." Mr. Palbrook, before arriving at the mines, visited some of the most successful silver mining enterprises in the States, such as the Lexington and Ontario, &c., and thereby obtained a vast amount of practical information as to the course of proceeding in these mines, which has led to the successful result of their paying good dividends.

He expresses himself fully satisfied with the properties acquired by the North Mexican Silver Mining Company as having all the elements of success with judicious practical management. He is awaiting further advice before preparing his report, which will be submitted to the bondholders and shareholders of the company, and promises to be a most instructive document from the thorough manner in which Mr. Palbrook has investigated everything. He has brought with him some very curious photographs, showing the manner in which mining has been carried on in Mexico, and the character of the lodes in the mines acquired by the company. These speak for themselves, and are, perhaps, the best practical evidence of the probable success of that company. The photographs are well worth examination, and will be more fully referred to in a future Journal. Mr. Palbrook caused 37 samples to be taken

from every part of the mines and separately assayed. These showed an average yield of \$53 to the ton, which must be regarded as a most satisfactory result.

CHILE GOLD MINING COMPANY.—Great difficulties have had to be contended with by this company, but it seems that at last it is likely to be put on a sound financial basis, a committee of the shareholders having taken the reins in hand. A circular just issued intimates that under better management the company might now be returning 3000 ozs. per month, and it is hoped that the mine, which has been proved by last year's output, exceeding 120,000Z. sterling value of gold, to be one of the richest, will yet become also one of the most prosperous. There has been a steady improvement during the last three months in the yield of gold, so that while in July the gross yield was 14 dwts. it had risen in October to 22 dwts. A telegram received by the directors states:—"Remittances for September, 1885 ozs.; 27 days' work; 60 stamps; 2160 tons quartz crushed." The return shows an improvement in the yield of gold of about 20 per cent. compared with the average from the commencement of the year.

METROPOLITAN AND METROPOLITAN DISTRICT RAILWAYS.—The question of amalgamating these railways has been mooted from time to time, but as yet nothing practical has come of it; and now that the Inner Circle is complete attention is again directed to the desirability of it. It is patent to all that it is a very undesirable thing, both for the public and for the companies themselves, that anything like rivalry should exist between two companies so intimately connected with each other, yet under present circumstances such a state of things can hardly be helped. Beyond doubt the completion of the circle will be attended with a considerable increase of traffic, and the extensions lately made by the District Company will lead to a steady increase in the suburban traffic. We think the time has come when, for their own benefit and for the public weal also, these two companies should come to some arrangement for the management of the railways by one staff of officials.

NEW WEST CARADON, AND WEST CARADON.—It will be seen by the report in to-day's Journal that the appearance of the No. 5 lode, both east and west, at the 33 fm. level, in New West Caradon, is of a very encouraging character, particularly in the eastern end, where it is probably to be attributed to the influence of the approaching junction of the lode with the No. 6 lode. The level is now about 8 fms. from the boundary of the two mines. From the latest dialling it appears that if the two lodes maintain their present bearing they will form a junction in West Caradon of about 2 fms. from the boundary line; therefore, the better the lode as it approaches the boundary the greater the importance to West Caradon, and the stronger the probability that an important discovery may be met with at the junction. There is a run of 200 fms. westward on the course of No. 5 lode in New West Caradon, and the indications in this direction also are such as to warrant the hope of an early improvement.

CARN CAMBORNE.—An improvement is reported from this mine; a new lode, called the New South lode, has been cut in the 105 cross-cut west, worth at present 3 tons of yellow copper ore per fathom, indications are favourable for further improvement. This is the most important discovery that has been made in the mine by the present company, and being in the deepest part of the mine augurs well for its success in depth.

EAST WHEAL LOVELL.—Steps are being taken to test the legality of the call made at a meeting convened for Friday, Oct. 31. Shareholders have been invited to communicate either with Mr. E. J. Bartlett or Mr. Alfred E. Cooke.

Messrs. JOHN DAVIS AND SON, of London and Derby, have been awarded by the Jury Commission appointed by H.R.H. the Prince of Wales, the President of the International Health Exhibition, a silver medal for their mining and surveying instruments.

EAST POOL.—A three-monthly meeting was held on the mine on Monday (Mr. G. A. Mitchell presiding). The accounts showed that the labour costs were 6768Z.; the merchants' bills, 2763Z.; Carn Brea water charges, 150Z.; dues to Mr. G. L. Basset, 989Z. The tin sales amounted to 361 tons 12 cwt., realising at an average price of 43Z. 7s. 4d., 15,682Z. This left a profit of 6000Z., and a dividend of 13s. per share was recommended by the committee, carrying forward to the reserve fund 240Z., and increasing that fund to 1117Z. A dividend at the rate of 18s. per share was declared. The agents' report stated that the engine shaft had been sunk 14½ fms. below the 212. They had communicated with the 197 east from the cross-course; this had opened a large piece of productive tin ground. A cross-cut in the 170 east was of a very promising character. The Chairman having moved, and Mr. Harris seconded the adoption of the report, it was carried.—Mr. Hoyer (pursuer) stated that the price of tin had made a very great difference to them. Had tin remained as it was when he was appointed pursuer, their profit that day would have been 5200Z. more, and they would have been enabled easily to declare a dividend of 15. 10s. per share. These were matters, however, over which they had no control, but he trusted there would soon be an improvement in trade. Every sixpence in their accounts was charged up.—Capt. Bishop remarked they would observe in the report that many of the bargains were lower than they formerly were. This was to be accounted for, to a very large extent, to the low price of tin.—Mr. Wickett said that probably no mine in the country—except, perhaps, West Kitty—could show a profit of 16Z. 10s. per ton on tin realising just over 45Z. per ton.

GAS SHARES.—The principal business in these shares, according to this evening's report of Messrs. W. L. WEBB and Co., of the Stock Exchange and Finch-lane, has been:—Bombay (Limited), 6½ to 7; British Gas, 42 to 42½; Buenos Ayres, New (Limited), 12½ to 13½; ditto, 5 per cent. Debentures, 189s. 10s. to 195½; Continental Union (Limited), Original, 37½; ditto, 7 per cent. Preference, 31½; Gas Light and Coke, A, Ordinary, 217 to 220½; ditto, C, D, and E, 10 per cent. Pref., 233½; ditto 4 per cent. Debenture Stock, 110½; ditto 5 per cent. Debenture Stock, 162; Imperial Continental, 207½ to 208½; Mauritius (Limited), 1½; Metropolitan of Melbourne, 5 per cent. 190s. 102½ to 102½; Monte Video (Limited), 18; Rio de Janeiro (Limited), 22½ to 22½; San Paulo (Limited), 13½; South Metropolitan, A, 284; ditto B, 221. Gas stocks continue flat, especially Gas A, which show a fall of 10 per cent. on the week.

INSURANCE SHARES.have, according to this evening's report of Messrs. W. L. WEBB and Co., of the Stock Exchange and Finch-lane, been dealt in as follows:—British and Foreign Marine (Limited), 22½; City of London Fire (Limited), ½; ditto Marine Insurance Corporation (Limited), ¾; Clerical, Medical, and General Life, 50; Commercial Union, 18 to 18½; Eagle, 6½; Guardian Fire and Life, 66½; Imperial Fire, 153; Indemnity Marine, 14½ to 14½; Law Fire, 16½ to 16½; Liverpool and London and Globe Fire and Life, 23½; North British and Mercantile, 25½ to 26½; Rock Life, 6½ to 7½; Royal Exchange, 400 to 401; Royal Insurance, 28½; Thames and Mersey Marine (Limited), 10½ to 10½; Universal Life, 40½ to 40½. Insurances little doing. Royal Exchange Assurance firm, and others unchanged.

TRAMWAYS.—The closing prices of this evening, as quoted by Mr. WM. ANNOTT, of Tokenhouse-yard, are given in tabular form in the last page of the Journal.

GOLD AND SILVER.—Messrs. PIXLEY and ABELL (Nov. 6) write:—During the week there have been almost daily withdrawals of gold for New York, the total so disposed of amounting to 248,000Z., against which the Bank has bought 35,000Z. in Australian sovereigns. The Bank rate having this day been altered from 4 to 5 per cent., it is improbable that more gold will be taken unless purchased in the open market. The sole arrival is 9540Z. from Brazil. Silver, owing to the total cessation of business on Indian account, has fallen away from 50½d. (our quotation last week) to 50¼d., which we quote as this day's price. The only arrival has been 41,800Z. from New York. The Nepal has taken 15,000Z. and the Clyde 124,000Z. to the East. Mexican dollars are entirely nominal at last rates quoted. There have been no arrivals. The P. and O. steamer sailing this day has taken 76,299Z. to China and the Straits. The quotations for bullion are—Bar gold, fine, 77s. 9¼d. per ounce standard; bar gold containing 20 dwts. silver, 77s. 11d. per ounce standard; bar silver, fine, 50½d. per ounce standard; bar silver containing 5 grs. gold, 50½d. per ounce standard; cake silver, 54¼d. per ounce; Mexican dollars, 50 per oz., last price nominal; quicksilver, 54. 10s. to 57. 12s.; discount 3 per cent.

At Redrath Ticketing, on Thursday, 790 tons of ore of 6½ average produce, and containing 47 tons 18 cwt. of fine copper, were sold for 1855Z. 13s. 6d., being 27. 7s. per ton of ore, 7s. 9d. per unit, or 38Z. 15s. per ton of fine copper in the ore, and an average standard of 84Z. 1s. Subjoined are the particulars of the two last sales.—

Date.	Tons.	Standard.	Produce.	Per ton.	Per unit.	Ore copper.
Oct. 23	2231	237 10 0	5½	22 5 8	7s. 11d.	£239 10 0
Nov. 6	790	84 1 0	6½	27 0	7 9	38 15 0

Compared with the last sale the decline has been in the standard 17. 10s., and in the price per ton of ore about 2s.

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The industrial crises has continued to prevail with a certain severity in France, and the complaints made respecting it are general. Contracts for iron are stated to have been concluded at 51. 12s. per ton at Paris; this would leave the prices at the forges at 41. 16s. per ton. With steel rails at their present price it is, of course, not at all an easy matter to maintain iron at high rates. There are 30 blast-furnaces in the east of France, and of these 19 are in activity, while 11 are either idle or are in course of reconstruction. The productive capacity of the furnaces is about 65,000 tons per month. Of the 19 furnaces in activity, 18 are in the hands of a syndicate, which has largely reduced production of late. The tone of the German iron trade has not varied; business in pig and minerals has shown continued weakness. There has been at the same time a good demand for spiegel pig, especially for the best marks, which are being exported in large quantities to the United States, although prices have not been maintained with much strength. Rolled iron has been in no great demand upon the German markets, and prices have fallen to a comparatively low point. As regards boiler plates, orders have also left a good deal to be desired in Germany, quotations have been weak at 87. 5s. per ton. The position of the German steelworks is still relatively satisfactory. The production of steel in the Dortmund district in the third quarter of this year amounted to 228,754 tons.

The intelligence received with respect to the Belgian Iron Trade indicates little change in the general state of affairs. Sales are being effected from day to day, and a sufficient number of small orders are received to keep the works going; that is the utmost which can be said. Such of the Belgian construction workshops as established branches in the North of France expected, it is stated, to realise a considerable profit, which would compensate them for the low rates at which they have to do business in Belgium. These anticipations are likely, however, to be disappointed, losses having been sustained which will reduce the small profits realised at home. The steelworks have still orders which will employ them for some time to come; they are also expecting to secure some foreign contracts. Prices have remained upon the Belgian markets at about their previous level. English casting pig has made 27. 2s. 6d. per ton. Hard refining pig has been quoted at 24. per ton; ordinary ditto at 17. 16s. per ton, and mixed ditto at 17. 12s. per ton. No. 1 iron has made 47. 10s. per ton for exportation, and 47. 12s. per ton on home account. No. 2 has been quoted at 47. 16s. per ton, and No. 3 at 51. 2s. per ton. Girders have made 47. 16s. to 51. per ton. No. 2 plates have made 67. 4s. per ton; No. 3 71., and plates of commerce 87. 12s. per ton. The Haine-St. Pierre Forges, Ironworks, and Foundries Company gives its shareholders a dividend at the rate of 10 per cent. per annum for 1883-4.

The Coal Trade has remained quiet in Belgium. The approach of winter has had no other effect but to harden prices, without producing the distinct advance usually observable at this period of the year. It is clear that the winter must be extremely rigorous, in order to produce any upward movement in quotations. In the Centre, and also in the Couchant de Mons, official circulars have been issued stating that there will be no change in prices. The number of trucks carrying coal and coke which passed over the Belgian State Railways in the week ending Oct. 26 was 20,422, as compared with 20,772 in the corresponding week of 1883. The German coal trade appears to be also hardening with the approach of winter; it is not proposed to advance prices at present, but there is a prospect at the same time of a good season. The demand which prevails relates naturally at present principally to household coal. The extraction effected in the basin of the Ruhr in the third quarter of this year was 7,127,032 tons, as compared with 7,009,403 tons in the corresponding period of 1883, showing an increase of 117,629 tons this year. The deliveries made from the basin in the third quarter of this year increased to 7,138,150 tons, as compared with 7,013,078 tons in the corresponding period of 1883. The stock on hand at the close of September is returned at 154,242 tons. The aggregate extraction effected to Sept. 30 this year amounted to 20,798,404 tons, as compared with 20,462,810 tons in the corresponding period of 1883.

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 Offices of the Review: 342, Strand, W.C.
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THE MINING SHARE LIST.

BRITISH DIVIDEND MINES.

Shares.	Divid.	Last	Clos.	pr.	Total	Per sh.	Last	pr.
12000 Bedford Unit, c. Tavis. (211 lab.)	0 14	0	1 1/4	1 1/4	0 1	0 1	0 1	0 1
6000 Carn Brea, c. t. Illogan	13 15	5	4	3 1/2	52 11	8	0 10	Nov. 1881
4000 Craignant Bach, c. t. Cardigan	5	0	0	0	0	0	0	0
12400 Devon Gt. Consols, c. t. Tavistock	1 0	0	2 1/2	1 1/2	2 1/2	118	0	6
4700 Dolcoath, c. t. Camborne	10 14	10	67	65	66	39	16	10
6400 East Pool, c. t. Illogan	0 9	9	39	38	39	41	3	18
12000 Great Holway, c. t. Flintshire	5	0	0	0	0	0	0	0
1000 Great Laxey, c. t. Isle of Man	4 0	0	0	0	0	0	0	0
6400 Green Hurth, c. t. Durham	0 0	0	0	0	0	0	0	0
9330 Gunnsdale (Clitters), c. t.	2 2	0	0	0	0	0	0	0
2800 Isle of Man, c. t. Isle of Man	25	0	0	0	0	0	0	0
6000 Killfret, c. t. Chacewater	4 11	6	56	55	56	14	6	0
21000 Leadhills, c. t. Lanarkshire	6 0	0	1 1/4	1 1/4	1 1/4	1 7	0	1
2500 Levant, c. t. St. Just	11	0	0	0	0	0	0	0
4000 Lisburne, c. t. Cardigan	13 15	0	0	0	0	0	0	0
12000 Mellanar, c. t. Hayle	2 0	0	0	0	0	0	0	0
9000 Miners Mining Co., c. t. Wrexham	5 0	0	0	0	0	0	0	0
20000 Mining Co. of Ireland, c. t.	7 0	0	0	0	0	0	0	0
1829 North Hendre, c. t. Wales	2 10	0	0	0	0	0	0	0
8146 Ditto	1 5	0	0	0	0	0	0	0
12000 Phoenix United, c. t. Linkinhorne	6 5	3	2	1 1/2	2	17	6	0
12000 Roman Gravel, c. t. Salop	7 10	0	0	0	0	0	0	0
6123 South Condurrow, c. t. Camborne	7 10	0	0	0	0	0	0	0
9000 South Darren, c. t. Cardigan	1 10	0	0	0	0	0	0	0
6000 Tincroft, c. t. Pool, Illogan	14 7	6	7	6	7	51	3	8
15000 Van, c. t. Llanidloes (in 24 shares)	4 5	0	0	0	0	0	0	0
6000 West Bassett, c. t. Illogan	7 13	4	13	14	13	28	3	0
6000 West Killy, c. t. St. Agnes	2 12	0	0	0	0	0	0	0
6000 Wheel Agar, c. t. Illogan	19 6	0	0	0	0	0	0	0
12000 Wheel Orebr, c. t. Tavistock	2 4	0	0	0	0	0	0	0
1024 Wheel Eliza Consols, c. t. Austell	18 0	0	0	0	0	0	0	0
6000 Wheel Grenville, c. t. Camborne	15 0	0	0	0	0	0	0	0
4295 Wheel Killy, c. t. St. Agnes	5 12	0	0	0	0	0	0	0
3000 Wheel Pevor, c. t. Redruth	14 9	6	5	5	5	8	13	6

FOREIGN DIVIDEND MINES.

Shares.	Divid.	Last	Clos.	pr.	Total	Per sh.	Last	pr.
35500 Alamillos, c. t. Spain	2 0	0	0	0	0	0	0	0
30000 Almaden and Tinto Consols, c. t.	1 0	0	0	0	0	0	0	0
20000 Australian, c. t. South Australia	7 7	6	2	1 1/2	2	11	0	0
15000 Birdseye Creek, c. t. California	4 0	0	0	0	0	0	0	0
30000 Bratsberg, c. t. Norway	2 0	0	0	0	0	0	0	0
30000 California, c. t. Colorado	1 0	0	0	0	0	0	0	0
20000 Cape Copper Mining, c. t. South Africa	8 0	0	0	0	0	0	0	0
65000 Colorado United, c. t. Colorado	5 0	0	0	0	0	0	0	0
50000 Colopaco, c. t. Chile (24 shares)	3 12	0	0	0	0	0	0	0
70000 English and Australian, c. t. S. Aust.	2 10	0	0	0	0	0	0	0
2000 Eng. Aus., c. t. Vict. (20000 o.)	1 0	0	0	0	0	0	0	0
25000 Fortuna, c. t. Spain	2 0	0	0	0	0	0	0	0
72000 Frontino & Bolivia, c. t. New Gran.	2 0	0	0	0	0	0	0	0
40000 La Plata, c. t. Leadville	1 0	0	0	0	0	0	0	0
30000 Linars, c. t. Spain	3 0	0	0	0	0	0	0	0
20000 Marbella Iron Ore, c. t. Spain	10 0	0	0	0	0	0	0	0
135164 Mason & Barry, c. t. Portugal	10 0	0	0	0	0	0	0	0
300000 Montana, c. t. U.S.A.	2 0	0	0	0	0	0	0	0
125000 Oxford, c. t. Nova Scotia	0 4	0	0	0	0	0	0	0
80559 Quebrada, c. t. Land & Cop. Venezuela	10 0	0	0	0	0	0	0	0
50000 Pampulillo, c. t. Chile	4 0	0	0	0	0	0	0	0
25000 Pitanguy, c. t. Brazil (in 6000 21 pd.)	0 18	0	0	0	0	0	0	0
1400 Pontbinaud, c. t. France	20 0	0	0	0	0	0	0	0
100000 Port Phillip, c. t. Clunes (22 shares)	1 0	0	0	0	0	0	0	0
50000 Rara Fortuna, c. t. Argent. Republic	1 0	0	0	0	0	0	0	0
54000 Richmond Consol., c. t. Nevada	5 0	0	0	0	0	0	0	0
245320 Rio Hito, c. t. Mortgage Bds. Huachuca	0 91	0	0	0	0	0	0	0
315000 Ditto, shares	14 0	0	0	0	0	0	0	0
60000 Santa Barbara, c. t. Brazil	0 10	0	0	0	0	0	0	0
12000 Schwabs Gully, c. t. Kimberley	10 0	0	0	0	0	0	0	0
120000 Scottish-Australian Mining Co., c. t.	1 0	0	0	0	0	0	0	0
80000 Ditto, New	0 10	0	0	0	0	0	0	0
22500 Sierra Buttes, c. t. California	2 0	0	0	0	0	0	0	0
40625 Ditto, Plumas Eureka	2 0	0	0	0	0	0	0	0
253000 St. John del Rey (45 Stock and multiple deal in)	5 70	0	0	0	0	0	0	0
180000 Tamboererry, c. t. W. Y.	1 0	0	0	0	0	0	0	0
825000 Tharsis, c. t. Spain (587330 issued)	1 0	0	0	0	0	0	0	0
14000 Tolima, c. t. Colombia (4 shares)	5 0	0	0	0	0	0	0	0
6000 Ditto (2 shares)	5 0	0	0	0	0	0	0	0
25000 Victoria (London), c. t. Australia	1 0	0	0	0	0	0	0	0
124221 United Mexican, c. t. Mexico	9 17	6	4	3	3 1/2	0	2	6
100000 Victorine (Nevada, U.S.) Deb. Bds.	1 0	0	0	0	0	0	0	0
15000 Western Andes, c. t. Colombia	5 0	0	0	0	0	0	0	0
2100 W. Prussian (5800 pref. sh. £10 pd.)	10 0	0	0	0	0	0	0	0
54800 Yorke Pen., c. t. South Aust. Pref. 10	1 0	0	0	0	0	0	0	0

NON-DIVIDEND FOREIGN MINES; FOREIGN AND MISCELLANEOUS STOCKS; TRAMWAYS; INSURANCE COMPANIES; GAS, IRON AND COAL, FINANCIAL AND INVESTMENT COMPANIES, &c.

NON-DIVIDEND FOREIGN MINES.

Shares.	Divid.	Last	Clos.	pr.
50000 Akankoo, c. t. Gold Cat. (100000 iss.)	1 0	0	0	0
44800 Anglo-African, c. t. Kimberley	10 0	0	0	0
12000 Arendal, c. t. Norway	4 0	0	0	0
20000 Asia Minor, c. t. Lidjessy, Sivas	0 15	0	0	0
120000 Balkis, c. t. Transvaal	1 0	0	0	0
32000 Beit, c. t. Lake Sup. (220 0 24 paid)	0 0	0	0	0
20000 British Australian, c. t. N. S. Wales	1 0	0	0	0
10000 Buena Ventura, c. t. Spain (y. pd.)	2 0	0	0	0
510000 Callao Bis, c. t. Venezuela	1 0	0	0	0
112500 Canadian, c. t. Canada	4 0	0	0	0
510000 Chile, c. t. Venezuela	1 0	0	0	0
25000 Chontales, c. t. Nicar. (108743 iss.)	1 0	0	0	0
75000 Colombian Hydraulic, c. t. Colombia	1 0	0	0	0
310000 Devala Moya, c. t. Wynad	1 0	0	0	0
75000 Devala Provident, c. t. Wynad	0 10	0	0	0
25000 Don Pedro North del Rey	1 0	0	0	0
251568 Eberhardt, c. t. Nevada	1 0	0	0	0
65000 Eureka, c. t. Nevada	1 0	0	0	0
40000 Georgia, c. t. United States	10 0	0	0	0
65000 Gold Hill, c. t. North Carolina	1 0	0	0	0
20000 Hoover Hill, c. t. North Carolina	1 0	0	0	0
12000 Hultafall, c. t. Orebro, Sweden	5 0	0	0	0
80000 Indian Consolidated, c. t.	1 0	0	0	0
40000 Ind. Glenrock, c. t. Wynad	1 0	0	0	0
60000 Iron Gate, c. t. Car. Hungary	1 0	0	0	0
60000 I.X.L., c. t. California	1 0	0	0	0
60000 Javali, c. t. Nicaragua	2 0	0	0	0
85000 Kapanga, c. t. New Zealand	1 0	0	0	0
60000 Kohnen, c. t. Colorado	1 0	0	0	0
20000 Kongberg, c. t. Norway	6 5	0	0	0
60000 Lisbon-Berlyn, c. t. South Africa	1 0	0	0	0
45000 London and California, c. t.	2 0	0	0	0
60000 Michipicoten, c. t. Quebec	1 0	0	0	0
60000 Moselle, c. t. Germany	1 0	0	0	0
1 5000 Mysore, c. t. India	1 0	0	0	0
75000 New Callao, c. t. Venezuela	1 0	0	0	0
75000 New Emma, c. t. Utah	10 0	0	0	0
30000 New Potosi, c. t. Venezuela	1 0	0	0	0
50000 Olathe, c. t. Leadville, Colorado	1 0	0	0	0
25000 Oregum, c. t. Mysore	1 0	0	0	0
12000 Oregon, c. t. U.S. (4000 pref. sh.)	0 6	0	0	0
15000 Organos, c. t. Colombia	1 0	0	0	0
20000 Orita, c. t. Colombia	1 0	0	0	0
75000 Oscar, c. t. Norway (51)	0 12	6	3	3
80000 Ouro Preto, c. t. Brazil	5 0	0	0	0
80000 Pestarena United, c. t. Italy	5 0	0	0	0
80000 Pierrefitte, c. t. (20000 pref.)	1 0	0	0	0
170000 Piacerville, c. t. California	1 0	0	0	0
40000 Ravenscliff, c. t. N. Zind; c. t. S. Aust.	1 0	0	0	0
90000 Rhodes Reef, c. t. Wynad	1 0	0	0	0
25000 Ruby and Dunderberg, c. t. Nov.	10 0	0	0	0
250000 Sentein, c. t. S. Afrig, France	1 0	0	0	0
100000 Silver Chord, c. t. Colorado	1 0	0	0	0
150000 Silver Peak, c. t. Colorado	1 0	0	0	0
207363 So. Austral. Cop. Mines (Corp. of)	1 0	0	0	0
100000 South-East Wynad, c. t. India	1 0	0	0	0
100000 Spitzkop, c. t. Transvaal	1 0	0	0	0
80000 Tocopilla, c. t. Bolivia	0 15	0	0	0
200000 Transvaal, c. t. South Africa	2 0	0	0	0
60000 Virneberg, c. t. Rheinbreitb. Ger.	2 0	0	0	0
250000 Victoria, c. t. Venezuela	1 0	0	0	0
190000 Wentworth, c. t. Wynad	0 18	0	0	0
75000 West Callao, c. t. Venezuela	1 0	0	0	0
100000 West Fr. Inc. & Boly, c. t. Colombia	1 0	0	0	0
80000 Wynad Perseverance, c. t.	1 0	0	0	0
75000 Yorke Peninsula, c. t. S. Aust.	1 0	0	0	0
50000 Yuba River, c. t. California	1 0	0	0	0

FINANCIAL AND INVESTMENT.

Shares.	Divid.	Last	Clos.	pr.
49150 10 Aus. Mort. & Agency (L) Eng. Issue	2 2	2 1/2	2 1/2	2 1/2
20000 25 Australian Agricultural	2 1/2	1 1/2	1 1/2	1 1/2
100000 10 Aus. & New Zealand Mort. (L) Bds	1 1	1 1/2	1 1/2	1 1/2
101860 Stk. Aust. 4 1/2 per cent. Deb. Stock	100	98	100	100
80000 25 Aust. Mort. Land & Finance (L)	5	17	18	18
582000 Stk. Aust. 4 1/2 per cent. Deb. Stock	100	101	103	103
8402 1 Canada Company	1	31	32	32
28325 1 Canada North West Land Co. (L)	5	13	14	14
13000 1 Central Argentine Land (L)	2	2	2	2
77000 5 Colon. Inv. & Ag. of N. Zealand (L)	1	3	3 1/2	3 1/2
12024568 Stk. Foreign Gov. Trust (L) Pref. 100	117	122	122	122
11067568 Stk. Do. Deferred	100	119	124	124
20000 5 General Credit and Discount (L)	3 1/2	3	3 1/2	3 1/2
25000 10 Land Corporation of Canada (L)	3	1	1 1/2	1 1/2
100000 3 London & S. African Explor. (L)	3	6	6 1/2	6 1/2
28038 50 London Financial Association (L)	1 1/2	2 1/2	2 1/2	2 1/2
45000 10 Manitoa Mort. & Invest. (L)	2	3	3 1/2	3 1/2
100000 10 Queensland Invest. & Land Mort. (L)	2	3	3 1/2	3 1/2
400000 Stk. Scottish-Australian Invest. (L)	100	245	255	255
80000 Stk. Do. 5 p. c. Guaranteed Pref.	100	115	120	120
200000 Stk. Do. 6 p. c. do.	100	134	139	139
100000 10 S. Aust. Land Mort. & Agency (L)	2	2 1/2	3	3

INSURANCE COMPANIES.

Issue, Shares.		Pd.	Clos.	pr.
50000 100	Alliance British and Foreign	11	37	38
10000 100	Ditto, Marine	20	22	23
50000 80	British and Foreign Marine [L]	4	22	23
550000 50	Commercial Union	5	15½	16½
50000 50	Eagle	2	6	6½
5000 10	Globe Marine [L]	2	22	24
27500 10	Imperial Life	10	22	24
13453 10	Indemnity Marine	50	14	15
100000 10	Lion Fire [L]	1½	3½	3½
49626 20	L'pool & Lond. Globe	23½	24½	24½
35862 25	London	12½	51	53
40000 25	London and Lancashire Fire	2½	4	4½
50000 80	London and Provincial Marine [L]	3	3½	4½
40000 15	Marine [L]	4½	27	28½
50000 10	Merchants' Marine [L]	2	20	21½
50000 10	Maritime [L]	2	30	34
80020 25	North British and Mercantile	6½	28	27
30000 100	Northern	10	42	44
40000 50	Ocean Marine	2	23	24
230000 10	Queen	1	2	2½
100000 10	Railway Passenger	35½	7½	8
200000 50	Rock Life	7½	6½	7½
50000 10	Sea	2	20	21
135000 20	Lancashire	2	4½	5½
4000 20	Standard Marine	4	22	24
10000 20	Thames and Mersey Marine [L]	2	10½	10½
40640 20	Union Marine, Liverpool [L]	3½	4½	5½
60000 20	Universal Marine [L]	3	6½	7½